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Water Resources Data Pennsylvania
Water Year 1981

ORIGINAL

Volume 3. Ohio River and St. Lawrence River Basins

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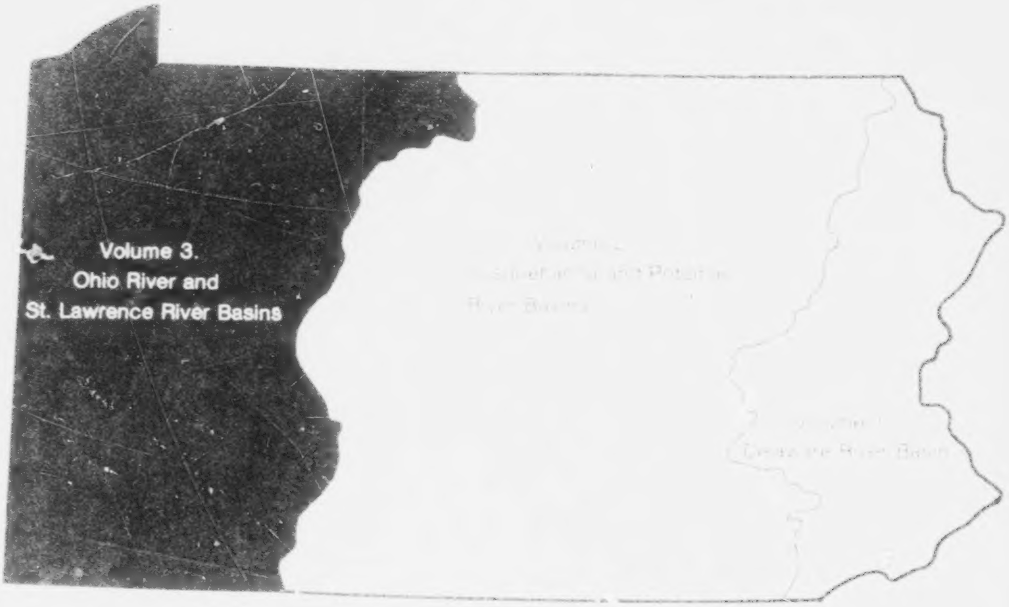
Volume 3.
Ohio River and
St. Lawrence River Basins
Volume 2.
Susquehanna and Potomac
River Basins
Volume 1.
Delaware River Basin

U.S. GEOLOGICAL SURVEY WATER DATA REPORT PA-81-3

Prepared in cooperation with the Pennsylvania Department of Environmental Resources, the Philadelphia Water Department and with other State, municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1981

1980

OCTOBER

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SEPTEMBER

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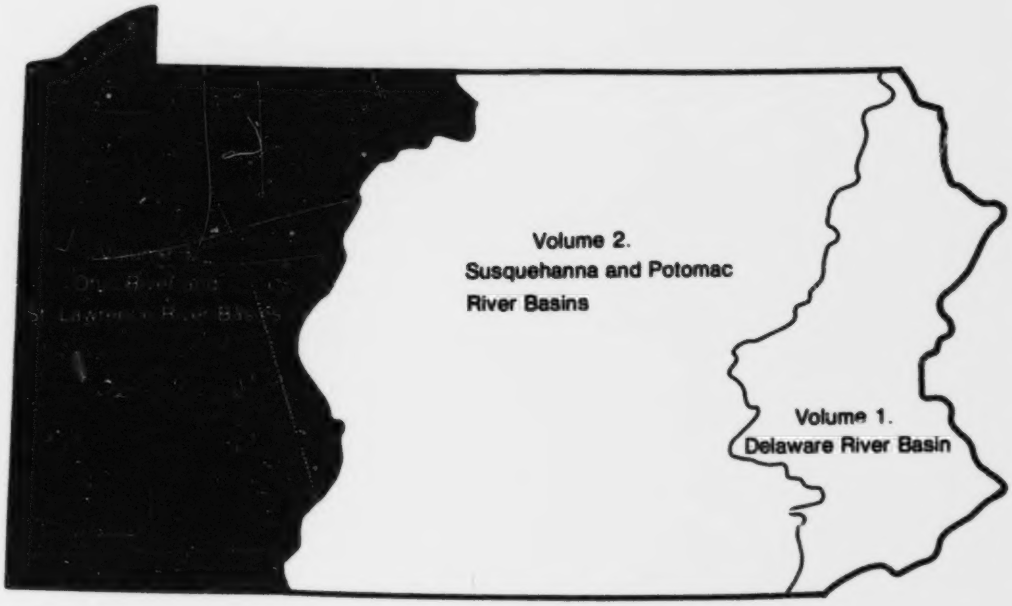
March 3, 1849

Water Resources Data Pennsylvania
Water Year 1981

Volume 3. Ohio River and St. Lawrence River Basins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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-81-3
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I

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
P.O. Box 1107
Harrisburg, Pennsylvania 17108
1982

PREFACE

This report was prepared by personnel of the Pennsylvania District of the Water Resources Division of the U.S. Geological Survey under the supervision of David E. Click, District Chief, and J. E. Biesecker, Regional Hydrologist, Northeastern Region. It was done in cooperation with the State of Pennsylvania and with other agencies.

This report is one of a series issued State by State. General direction for the series is by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and Robert J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Pennsylvania are in three volumes as follows:

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Volume 2. Susquehanna and Potomac River Basins
Volume 3. Ohio River and St. Lawrence River Basins

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Water resources data for the 1981 water year for Pennsylvania consist of records of discharge and water quality of streams; elevation and contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 86 gaging stations; elevations and contents at 3 lakes and reservoirs; water quality at 35 gaging stations; and water levels at 20 observation wells. Also included are data for 11 crest-stage, 7 low-flow and 322 water-quality partial-record stations. Locations of these sites are shown on figures 4 through 7. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volumes 1 and 2 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.

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GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

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INTRODUCTION

Water resources data for the 1981 water year for Pennsylvania consist of records of discharge and water quality of streams; elevation and contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 86 gaging stations; elevation and contents at 3 lakes and reservoirs; water quality at 35 gaging stations; and water levels at 20 observation wells. Also included are data for 11 crest-stage, 7 low-flow, 29 miscellaneous, and 322 water-quality partial-record stations. Locations of these sites are shown on figures 4 through 7. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volumes 1 and 2 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.

Records of discharge and stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from the Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia 22202.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report PA-81-3." These water-data reports are for sale, in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (717) 782-3851.

COOPERATION

The U.S. Geological Survey and organizations of the Commonwealth of Pennsylvania have had cooperative agreements for the systematic collection of surface-water records during the periods 1919-21 and 1931 to date, water-quality records from 1944 to date, and ground-water records from 1925 to date. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

State Department of Environmental Resources, P. S. Duncan, Secretary, through the following:
Office of Resources management, W. R. Timothy, Acting Deputy Secretary; Office of Environmental Protection and Regulation, W. B. Middendorf, Deputy Secretary; Bureau of Topographic and Geologic Survey, A. A. Socolow, State Geologist.

New York State Department of Environmental Conservation, Ogden Reid, commissioner.

Assistance in the form of funds or services was given by: Corps of Engineers, U.S. Army, in collecting records for 62 gaging stations. Assistance was also furnished by the National Weather Service, NOAA, U.S. Department of Commerce.

The following organizations aided in collecting records:

Allegheny Power Service Corp.; Greater Johnstown Water Authority; Latrobe Municipal Authority; Manufacturers Water Co.; Municipal Authority of Westmoreland County; and Pennsylvania Electric Co.

STREAMFLOW

Unlike central and eastern Pennsylvania which experienced drought conditions during the 1981 water year, streamflow in western Pennsylvania in the Ohio and St. Lawrence River basins was excessive. At the index station for the Ohio River basin, Oil Creek at Rouseville, the mean discharge for the 1981 water year was 111 percent of the median discharge for the 1951-80 reference period.

On June 9, 1981 heavy thunderstorms caused flash flooding across northern Clarion and Venango counties. Hardest hit was the Sage Run basin which received 5-6 inches of rain causing roads and bridges to be washed out, with the loss of one life. Three indirect measurements of peak flow were made as a result of this flooding. Measurements were made at Cherry Run at Rouseville, Pa., Lower Twomile Run near Franklin, Pa. and Clear Creek near Sigel, Pa. which is currently a crest-stage. The recurrence interval for this flooding was greater than 100 years at all three sites.

A comparison of the monthly and yearly mean discharge for the 1981 water year with the 1951-80 reference period for Oil Creek at Rouseville is shown in figure 1.

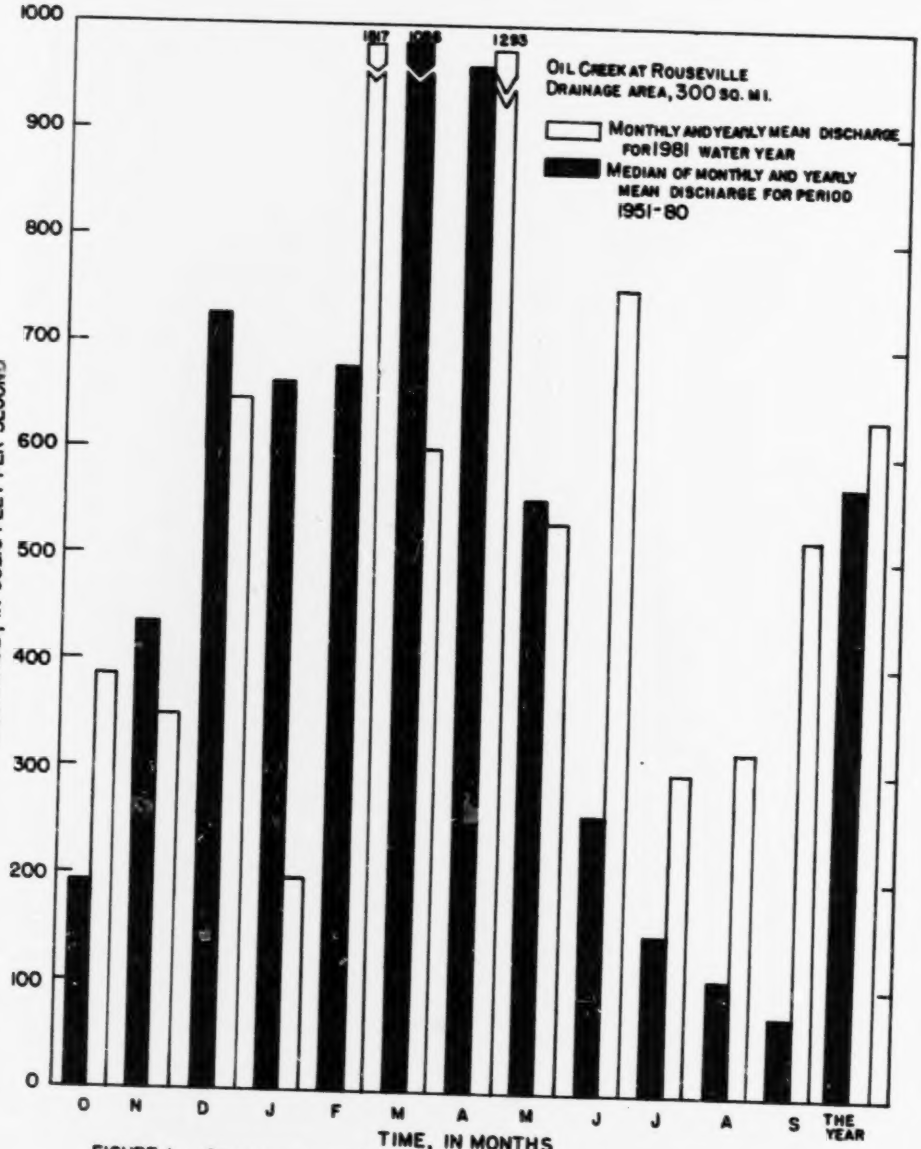


FIGURE 1.- COMPARISON OF DISCHARGE AT OIL CREEK AT ROUSEVILLE DURING THE 1981 WATER YEAR WITH MEDIAN DISCHARGE FOR PERIOD 1951-80.

BEST DOCUMENT AVAILABLE

Ground-Water Conditions

During the 1981 water year the water table was at or above normal level over most of the upper Ohio River basin in Pennsylvania. During the winter or spring, water levels generally showed annual highs. Water levels generally declined during the summer and early fall because trees and other plants consumed large quantities of water from the soil and shallow bedrock. In the southern half of the upper Ohio River basin, the above normal water levels, characteristic of the 1980 water year, continued during part or all of the 1981 water year in key observation wells located in eight counties.

Figure 2 shows how the water table relates seasonally to normal levels. Based on water-level fluctuations in each of 17 key wells, the water levels of the 1981 water year are averaged by season and compared to the long-term means for these seasons. During the fall and winter, evaluation of water-level data given in fig. 2 shows normal or above normal water levels throughout the Ohio River basin except for an area in the northeast. During the spring, ground-water levels in the southern half of the upper Ohio River basin were mostly above normal and those in the northern half were generally normal. During the summer, water levels in most of the eastern part of the upper Ohio River basin were above normal, while several counties in the northwest were below normal. Less than average precipitation recorded during July, August, and September at several sites in northwest Pennsylvania is believed responsible for the below normal levels.

Water Quality Conditions

The pH and dissolved solids concentrations at the three NASQAN stations in the Ohio River Basin in Pennsylvania showed little variation under different streamflow conditions throughout the 1981 water year. The highest dissolved solids concentrations were observed during the low flow conditions at each of the three sites, which was expected. The dissolved solids to specific conductance ratios for the Allegheny River at New Kensington, the Monongahela River at Braddock, and the Beaver River at Beaver Falls averaged .60, .65 and .63 respectively.

The dissolved oxygen saturation levels were highest on the Allegheny River at New Kensington, with a range between 91 and 111 percent saturation, and lowest on the Beaver River at Beaver Falls, with a range between 40 and 91 percent saturation. The dissolved oxygen saturation levels on the Monongahela River at Braddock ranged from 73 to 108 percent saturation.

The following table gives the ranges and median values for pH, specific conductance and dissolved solids concentration at the three NASQAN stations for the 1981 water year:

	pH			Specific conductance			Dissolved solids		
	Max	Min	Median	Max	Min	Median	Max	Min	Median
Allegheny River at New Kensington	7.4	7.0	7.2	365	185	227	229	92	143
Monongahela River at Braddock	7.8	6.4	7.2	575	200	330	423	126	201
Beaver River at Beaver Falls	7.8	7.4	7.4	488	340	430	332	206	261

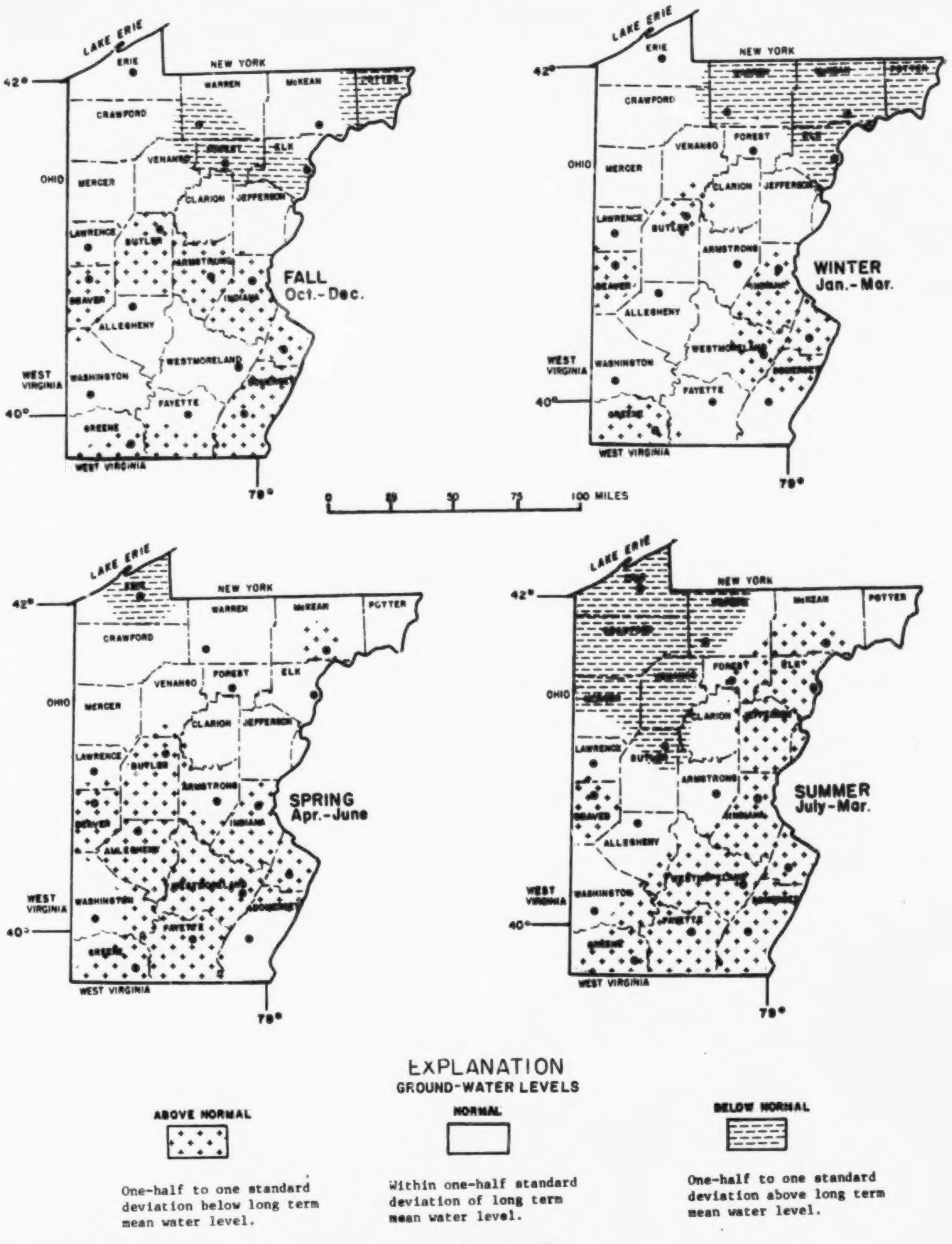

LAKE ERIE
NEW YORK
OHIO
WEST VIRGINIA
42°
40°
79°
ERIE
WARREN
McKEAN
POTTER
CRAWFORD
VENANGO
FOREST
ELK
MERCER
CLARION
JEFFERSON
LAWRENCE
BUTLER
ARMSTRONG
INDIANA
BEAVER
ALLEGHENY
WESTMORELAND
WASHINGTON
FAYETTE
GREENE
SOMERSET
FALL
Oct.-Dec.
WINTER
Jan.-Mar.
SPRING
Apr.-June
SUMMER
July-Mar.
0
25
50
75
100 MILES
EXPLANATION
GROUND-WATER LEVELS
ABOVE NORMAL
NORMAL
BELOW NORMAL
One-half to one standard deviation below long term mean water level.
Within one-half standard deviation of long term mean water level.
One-half to one standard deviation above long term mean water level.
● Observation wells

FIGURE 2--Relation between mean 1981 seasonal water levels and long term water levels in Western Pennsylvania.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (µg/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, mg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organisms count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	0.00024 - 0.004	Sedimentation.
Silt	0.004 - 0.062	Sedimentation.
Sand	0.062 - 2.0	Sedimentation or sieve.
Gravel	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth ($1x10^{-12}$) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that orginiates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in the solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 mm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 mm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexageria
Species	Hexagenia limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 03041000, which appears just to the left of the station name, includes the 2-digit part number "03" plus the 6-digit downstream order number "041000."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and some miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote the degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites with a 1-second grid. See figure 3 below.

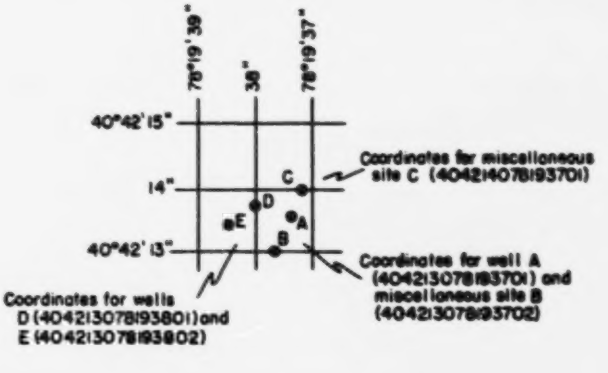

78°19'39"
38"
78°19'37"
40°42'15"
14"
40°42'13"
C
D
E
A
B
Coordinates for miscellaneous site C (404214078193701)
Coordinates for well A (404213078193701) and miscellaneous site B (404213078193702)
Coordinates for wells D (404213078193801) and E (404213078193802)

Figure 3.--System for numbering wells and miscellaneous sites (latitude and longitude).

A local well number is also assigned to the wells and consists of a 2-letter abbreviation of the county in which the well is located and a sequential number assigned at the time the well was scheduled.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence to tritium in the Nation's surface waters. In addition to the surface-water station in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurement of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents.

This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 6.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR"; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following "EXTREMES," for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used for computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good," within 10 percent; and "fair," within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended-sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longtitude and (2) a local number that is provided for local needs. See figure 3.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above National Geodetic Vertical Datum is given in the well description. National Geodetic Vertical Datum is the datum plane on which the national network of precise levels is based. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported daily.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

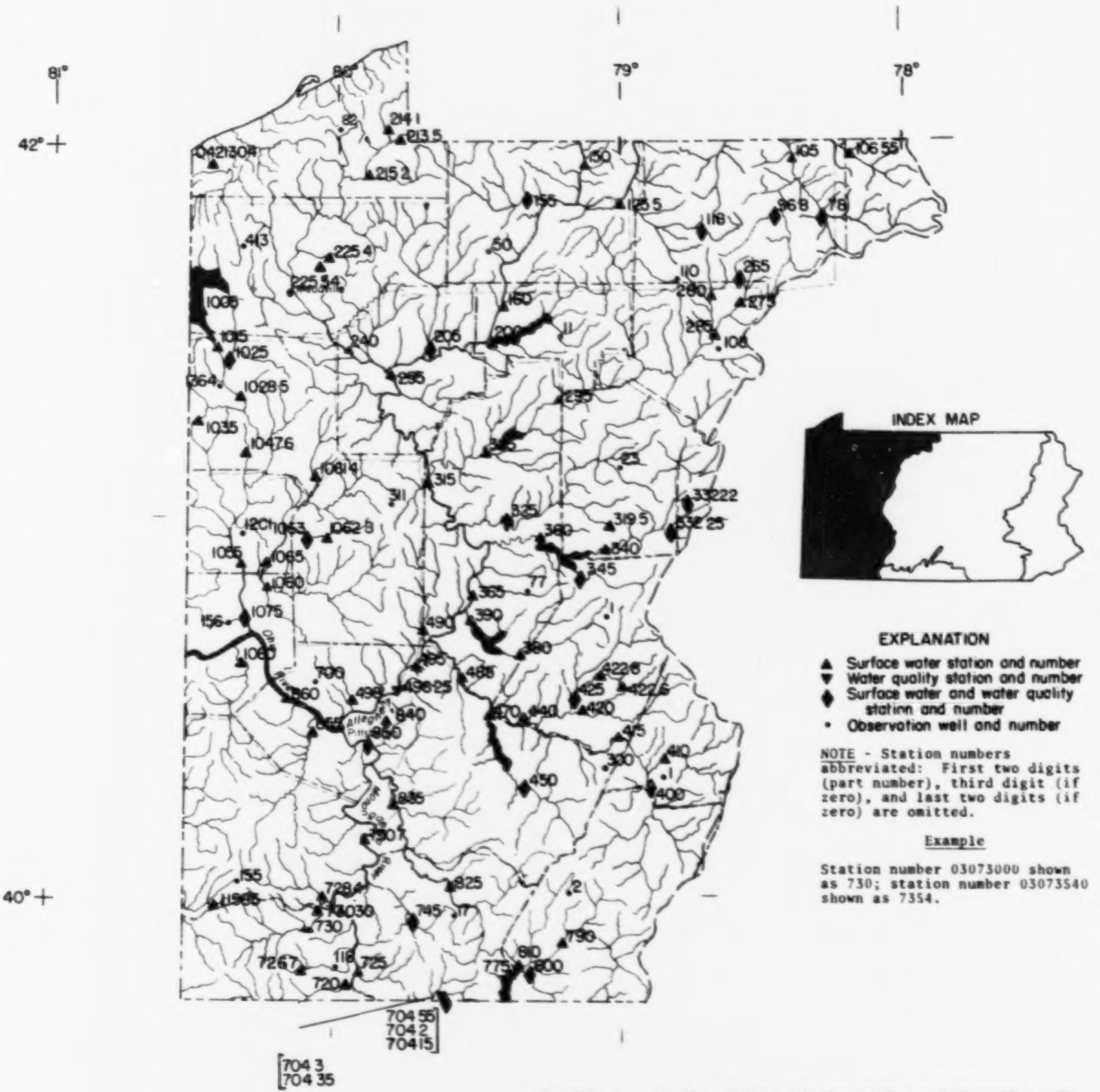
5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.


81°
80°
79°
78°
42°
40°
INDEX MAP
Allegheny
Pitts
2141
2135
2152
82
42130
413
2254
22554
1005
1015
1025
1064
10285
1035
10476
10814
311
315
1200
1063
10625
1055
1065
1060
156
1075
1080
1050
700
498
49825
840
850
885
7201
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1150
7284
73030
730
7267
118
725
720
745
17
825
150
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1255
118
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78
105
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450
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790
810
775
800
70455
7042
70415
7043
70435

EXPLANATION

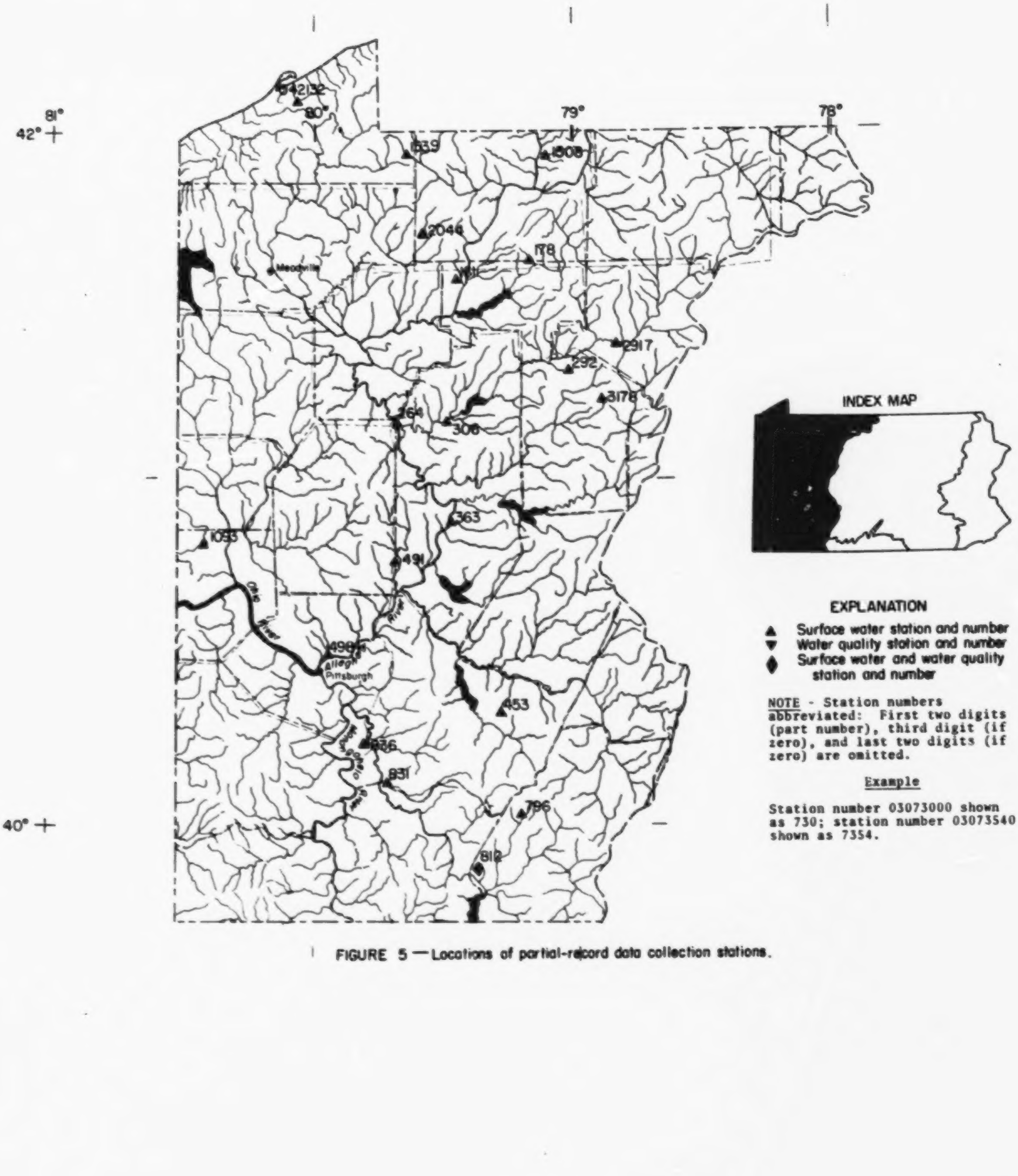
▲ Surface water station and number
▼ Water quality station and number
◆ Surface water and water quality station and number
• Observation well and number

NOTE - Station numbers abbreviated: First two digits (part number), third digit (if zero), and last two digits (if zero) are omitted.

Example

Station number 03073000 shown as 730; station number 03073540 shown as 7354.

FIGURE 4 —Locations of data collection stations and observation wells.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42132
639
1508
2046
178
Meadville
2917
292
3178
264
306
363
1093
491
Ohio River
4986
Allegh
Pittsburgh
453
836
831
796
812
INDEX MAP

EXPLANATION

- ▲ Surface water station and number
- ▼ Water quality station and number
- ◆ Surface water and water quality station and number

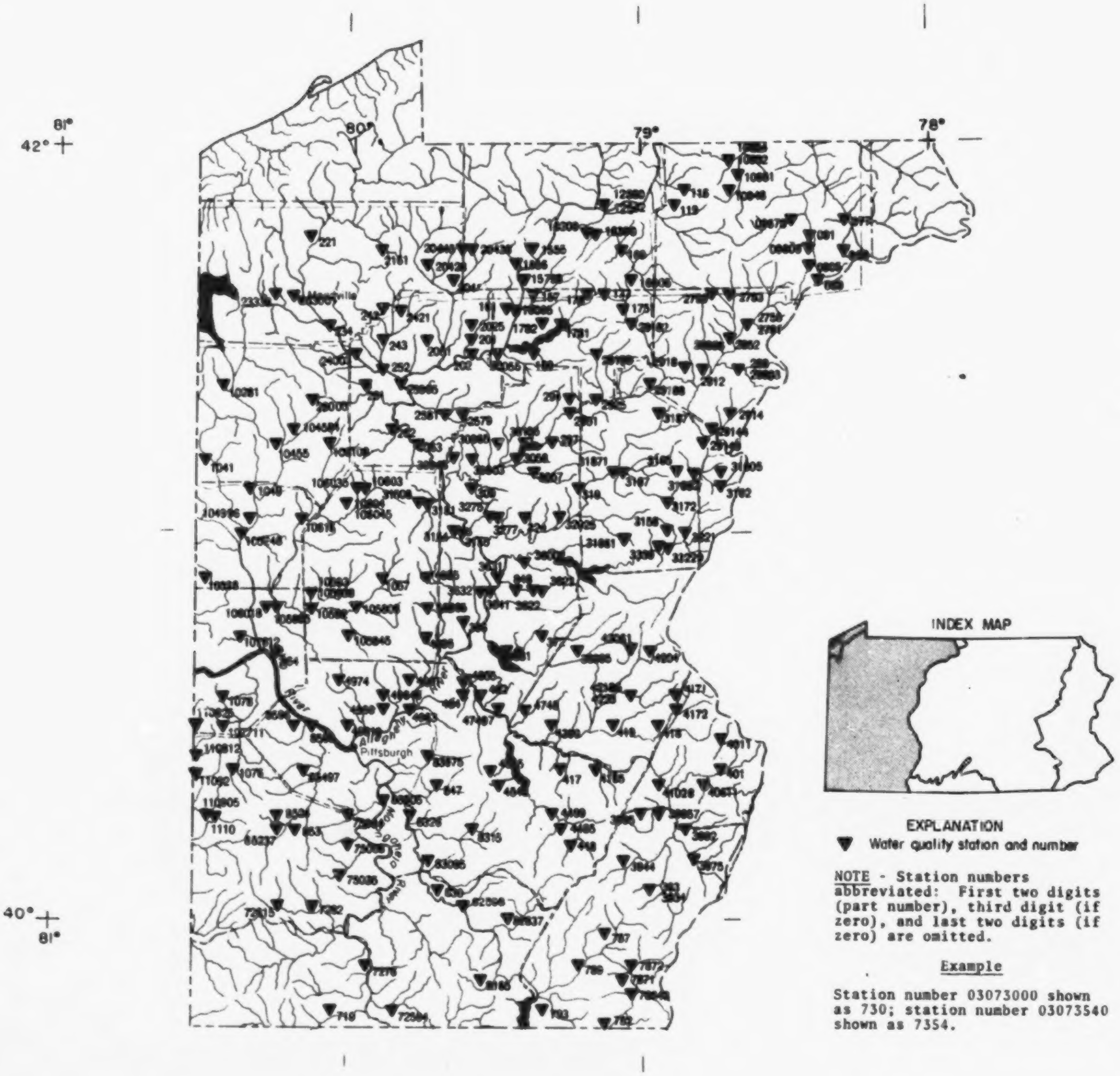
NOTE - Station numbers abbreviated: First two digits (part number), third digit (if zero), and last two digits (if zero) are omitted.

Example

Station number 03073000 shown as 730; station number 03073540 shown as 7354.

FIGURE 5 — Locations of partial-record data collection stations.

BEST DOCUMENT AVAILABLE


81°
42°
80°
79°
78°
40°
81°
Meadville
Pittsburgh
INDEX MAP
EXPLANATION
▼ Water quality station and number

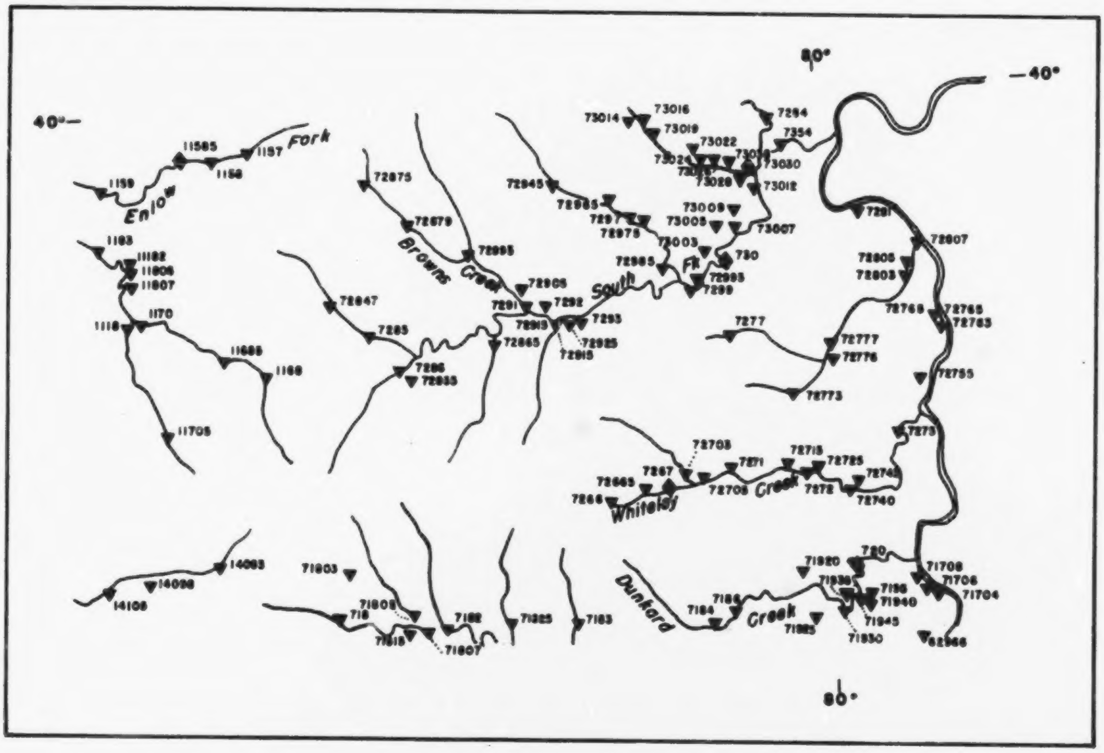
NOTE - Station numbers abbreviated: First two digits (part number), third digit (if zero), and last two digits (if zero) are omitted.

Example

Station number 03073000 shown as 730; station number 03073540 shown as 7354.

FIGURE 6 - Locations of water-quality partial-record stations of the coal-hydrology network.

BEST DOCUMENT AVAILABLE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Browns Creek
South Fk
Whiteley Creek
Dunkard Creek
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7354
73016
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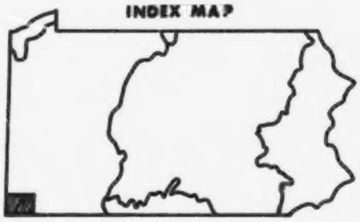

EXPLANATION

▼ Water-quality station and number

◆ Surface-water and water-quality station and number

NOTE - Station numbers abbreviated: First two digits (part number), third digit (if zero), and last two digits (if zeros) are omitted.

Example

Station number 03073000 shown as 730; station number 03073540 shown as 7354.

FIGURE 7.– Locations of water quality and surface water stations of the coal-hydrology network - Green County.

03007800 ALLEGHENY RIVER AT PORT ALLEGANY, PA

LOCATION.--Lat 41°49'07", long 78°17'35", McKean County, Hydrologic Unit 05010001, on right bank 40 ft (12 m) upstream from bridge on U.S. Highway 6 at Port Allegany, 1.1 mi (1.8 km) upstream from Twomile Creek and 1.4 mi (2.3 km) downstream from Allegheny Portage Creek, and at mile 285.5 (459.4 km).

DRAINAGE AREA.--248 mi^2 (642 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year. Discharge measurements obtained by Corps of Engineers since March 1971.

GAGE.--Water-stage recorder. Datum of gage is 1,454.88 ft (443.447 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--7 years, 493 ft^3/s (13.96 m^3/s), 27.00 in/yr (686 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,610 ft^3/s (216 m^3/s) Feb. 21, 1981, gage height, 12.72 ft (3.877 m); minimum, 23 ft^3/s (0.651 m^3/s) Aug. 21, 1975; minimum gage height, 1.55 ft (0.472 m), Oct. 10, 11, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of at least 17.5 ft (5.3 m), present datum, discharge 21,700 ft^3/s (615 m^3/s), from Corps of Engineers discharge measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft^3/s (71.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 21	0330	*7610	216	*12.72	3.877
Apr. 30	0330	4320	122	9.90	3.018
May 12	0600	3570	101	8.96	2.731
May 15	1500	3890	110	9.36	2.853
June 4	0230	4470	127	10.04	3.060

Minimum discharge, 29 ft^3/s (0.82 m^3/s) Oct. 10, 11, gage height 1.55 ft (0.472 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	162	285	105	54	913	654	2710	155	282	92	52
2	33	147	430	100	70	753	710	1900	216	237	83	92
3	37	132	830	94	96	625	649	1320	443	328	78	145
4	39	131	766	86	90	547	597	1040	3740	260	87	127
5	37	132	678	82	80	503	559	842	1630	287	75	242
6	33	119	577	86	74	455	501	734	980	265	68	196
7	33	116	532	90	70	400	435	605	686	210	62	184
8	33	131	589	92	68	363	393	502	499	182	382	270
9	31	154	625	88	66	334	377	435	762	162	247	367
10	30	206	647	86	66	312	356	388	499	149	186	302
11	32	182	578	84	140	300	344	1330	415	131	162	272
12	39	168	534	80	940	281	340	3340	352	119	162	240
13	39	162	514	78	800	315	490	2520	310	109	129	202
14	39	158	446	78	680	282	664	1720	505	102	119	198
15	41	152	380	84	580	255	848	3260	898	92	126	180
16	41	139	340	86	500	277	864	2980	862	86	166	152
17	35	125	300	84	800	243	856	1900	934	81	122	139
18	40	136	260	80	1700	219	809	1280	710	75	102	124
19	61	134	230	78	2900	243	656	957	582	71	93	112
20	44	124	240	76	5970	226	589	748	496	121	87	110
21	48	112	290	70	6930	223	523	598	445	164	80	100
22	46	119	230	68	4740	206	470	496	409	158	74	98
23	41	114	210	66	3500	206	560	419	337	105	68	98
24	36	178	180	62	4540	210	724	356	282	89	63	86
25	394	349	170	60	3210	206	705	314	252	80	62	77
26	690	300	160	60	1970	199	685	301	225	78	57	74
27	331	290	150	76	1340	305	640	257	194	83	52	72
28	270	305	140	66	1110	287	807	233	172	95	52	75
29	235	310	130	64	---	295	3090	215	154	232	57	69
30	198	280	120	60	---	395	4080	195	149	136	50	63
31	178	---	115	56	---	609	---	177	---	107	55	---
TOTAL	3217	5267	11676	2425	43084	10987	23975	34072	18293	4676	3298	4518
MEAN	104	176	377	78.2	1539	354	799	1099	610	151	106	151
MAX	690	349	830	105	6930	913	4080	3340	3740	328	382	367
MIN	30	112	115	56	54	199	340	177	149	71	50	52
CFSM	.42	.71	1.52	.32	6.21	1.43	3.22	4.43	2.46	.61	.43	.61
IN.	.48	.79	1.75	.36	6.46	1.65	3.60	5.11	2.74	.70	.49	.68

CAL YR 1980 TOTAL 121167 MEAN 331 MAX 2580 MIN 30 CFSM 1.34 IN 18.17
WTR YR 1981 TOTAL 165488 MEAN 453 MAX 6930 MIN 30 CFSM 1.83 IN 24.82

03007800 ALLEGHENY RIVER AT PORT ALLEGANY, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 21...	1600	45	120	7.0	10.0	--	--	28	12	68
JAN 20...	1530	74	100	7.0	.0	--	--	80	12	62
MAR 04...	1045	520	75	7.0	1.5	--	--	200	11	46
APR 21...	1630	554	85	6.9	6.0	.2	10	--	11	54
JUN 10...	1045	468	75	6.9	15.0	--	--	48	11	55
AUG 26...	1415	57	100	7.2	20.0	--	--	76	13	61

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 21...	.09	8.3	590	380	210	70	--	--	3	.37
JAN 20...	.08	12.5	330	250	80	80	0	80	1	.20
MAR 04...	.06	64.6	1600	1600	40	90	40	50	938	1320
APR 21...	.07	80.8	280	190	90	40	0	50	9	13
JUN 10...	.07	69.5	580	490	90	70	10	60	21	27
AUG 26...	.08	9.4	570	410	160	50	20	30	6	.93

03009680 POTATO CREEK AT SMETHPORT, PA

LOCATION.--Lat 41°48'35", long 78°25'50", McKean County, Hydrologic Unit 05010001, on left bank 30 ft (9.1 m) upstream from U.S. Highway 6 at east borough limits of Smethport and 500 ft (152 m) downstream from Marvin Creek.

DRAINAGE AREA.--160 mi^2 (414 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,454.84 ft (443.435 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, and those for period of no gage-height record, Feb.20 to Mar. 4, which are fair. Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--7 years, 312 ft^3/s (8.836 m^3/s), 26.48 in/yr (673 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,550 ft^3/s (129 m^3/s) Feb. 17, 1976, gage height, 10.66 ft (3.249 m); minimum, 14 ft^3/s (0.40 m^3/s) Sept. 14, 1978, gage height, 1.90 ft (0.579 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a stage of 15.54 ft (4.737 m), discharge 12,800 ft^3/s (362 m^3/s) on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft^3/s (70.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 20	Unknown	*a4400	124	*Unknown	
Apr. 29	2200	3530	100	9.73	2.966
June 3	2330	2510	71.1	8.64	2.633

Minimum discharge, 20 ft^3/s (0.57 m^3/s) Oct. 10, gage height 1.91 ft (0.582 m).

a Based on hydrologic study.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	130	229	72	46	600	414	1450	78	87	58	30
2	23	118	420	80	54	480	395	1060	187	71	52	56
3	25	105	618	84	100	420	348	741	491	92	58	82
4	31	110	429	74	84	370	311	582	970	71	94	90
5	27	114	423	66	68	325	320	482	326	147	80	131
6	24	99	398	60	56	293	276	444	232	110	64	96
7	24	96	371	56	48	252	235	374	172	71	60	67
8	24	116	553	54	43	224	212	305	136	55	452	123
9	22	156	608	50	40	206	215	258	377	48	249	156
10	21	218	595	48	37	195	204	238	194	46	100	84
11	23	165	479	47	200	189	210	1230	149	39	54	69
12	31	138	423	54	410	178	223	2330	122	36	52	63
13	32	130	396	68	360	245	470	1380	110	34	48	57
14	31	130	336	62	320	199	644	959	374	32	44	63
15	33	126	290	56	280	172	618	987	473	29	42	68
16	31	114	240	52	270	202	544	723	296	28	221	55
17	26	103	200	48	600	164	592	569	357	27	110	55
18	37	114	170	45	1000	153	634	458	232	25	66	48
19	55	110	150	45	2000	167	482	386	187	25	41	43
20	35	103	130	44	4300	152	435	326	160	54	36	47
21	38	99	115	44	3500	151	377	273	151	107	32	44
22	35	101	110	43	2400	140	329	232	158	105	30	43
23	31	99	170	44	2300	148	476	197	130	46	27	46
24	28	210	130	46	2000	149	572	169	105	38	27	39
25	602	377	110	47	1400	139	500	153	96	37	26	35
26	848	255	98	50	1000	134	432	147	87	39	27	34
27	300	221	90	64	660	279	389	130	75	45	26	34
28	249	226	84	58	740	210	899	122	66	80	26	39
29	213	226	80	50	---	199	3210	116	59	261	32	36
30	165	204	100	45	---	358	2560	105	60	89	29	33
31	144	---	130	40	---	487	---	96	---	70	30	---
TOTAL	3232	4513	8675	1696	24316	7580	17526	17022	6610	2044	2293	1866
MEAN	104	150	280	54.7	868	245	584	549	220	65.9	74.0	62.2
MAX	848	377	618	84	4300	600	3210	2330	970	261	452	156
MIN	21	96	80	40	37	134	204	96	59	25	26	30
CFSM	.65	.94	1.75	.34	5.43	1.53	3.65	3.43	1.38	.41	.46	.39
IN.	.75	1.05	2.02	.39	5.65	1.76	4.07	3.96	1.54	.48	.53	.43

CAL YR 1980 TOTAL 84025 MEAN 230 MAX 1940 MIN 21 CFSM 1.44 IN 19.54
WTR YR 1981 TOTAL 97373 MEAN 267 MAX 4300 MIN 21 CFSM 1.67 IN 22.64

03009680 POTATO CREEK AT SMETHPORT, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
OCT 22...	0915	32	95	7.3	7.0	23	9.9	60	.08
JAN 20...	1330	44	220	7.0	.0	44	11	108	.15
MAR 05...	0930	319	55	6.7	1.5	6	12	20	.03
APR 22...	--	--	--	--	--	--	--	--	--
JUN 10...	1345	197	65	7.1	18.0	44	9.4	49	.07
AUG 25...	1610	25	75	7.1	21.0	56	14	59	.08

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 22...	5.2	650	380	270	50	0	60	1	.09
JAN 20...	13.0	690	450	240	110	0	110	1	.12
MAR 05...	17.2	290	230	60	60	10	50	1	.86
APR 22...	--	--	--	--	--	--	--	13	--
JUN 10...	26.1	700	530	170	90	10	80	15	8.0
AUG 25...	4.1	640	480	160	60	20	40	4	.28

03010500 ALLEGHENY RIVER AT ELDRED, PA

LOCATION.--Lat 41°57'48", long 78°23'11", McKean County, Hydrologic Unit 05010001, on right bank at site of former highway bridge, 600 ft (183 m) upstream from bridge on State Highway 346, 1,000 ft (305 m) upstream from Knapp Creek, 0.5 mi (0.8 km) north of Eldred, and at mile 267.8 (430.9 km).

DRAINAGE AREA.--550 mi^2 (1,424 km^2).

PERIOD OF RECORD.--July 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,416.53 ft (431.758 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--42 years, 950 ft^3/s (26.90 m^3/s), 23.46 in/yr (596 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,400 ft^3/s (1,850 m^3/s) June 23, 1972, gage height, 29.05 ft (8.854 m) from floodmark, from rating curve extended above 21,000 ft^3/s (595 m^3/s) on basis of slope-area measurement at gage height 27.6 ft (8.41 m); minimum, 22 ft^3/s (0.62 m^3/s) Sept. 29, 30, 1959, gage height, 1.27 ft (0.387 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft^3/s (142 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 21	1800	*11800	334	18.42	5.614	May 13	1800	5120	144	13.12	3.999
May 1	0700	6100	173	14.09	4.295						

Minimum discharge, 58 ft^3/s (1.64 m^3/s) Oct. 10, 11, 12, gage height, 1.83 ft (0.558 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	473	671	250	180	2120	1620	6000	332	482	257	108
2	72	425	975	230	200	1700	1600	5040	351	396	217	110
3	74	380	1780	270	240	1440	1430	3760	554	517	200	246
4	89	355	1620	190	350	1230	1280	2470	2780	462	194	249
5	95	375	1520	180	300	1180	1220	1820	3470	438	200	361
6	82	349	1400	190	250	1050	1120	1570	2230	605	169	406
7	72	324	1250	200	240	915	952	1390	1310	423	151	333
8	69	351	1490	190	260	802	827	1140	942	343	252	320
9	66	420	1810	180	220	728	759	957	1430	302	716	632
10	61	642	1740	180	210	674	775	835	1390	274	389	500
11	58	608	1540	170	500	651	683	1690	882	249	311	420
12	69	506	1330	160	1400	618	743	3840	702	224	311	374
13	98	457	1250	150	1200	682	1280	4960	603	206	275	335
14	98	435	1110	160	1100	685	1580	4720	936	191	237	310
15	101	425	860	160	1000	575	2250	3820	2040	174	245	319
16	110	390	720	170	920	654	1980	3780	1890	158	334	290
17	96	353	620	170	1800	586	1860	3650	1780	149	311	259
18	93	335	540	170	3000	477	1970	2700	1430	141	229	247
19	130	372	450	160	5100	523	1630	1860	1130	131	196	217
20	152	340	400	160	7460	516	1410	1480	929	146	176	204
21	123	322	460	160	11300	497	1260	1220	831	317	160	203
22	132	315	500	160	10400	482	1090	1010	762	356	146	192
23	118	322	430	160	7840	473	1180	842	685	270	134	196
24	101	397	380	160	6680	489	1670	711	553	188	125	187
25	532	1080	340	150	6470	477	1640	618	480	159	120	163
26	2750	991	300	160	5110	457	1510	581	439	151	114	147
27	1650	794	270	200	3620	667	1380	520	387	178	109	140
28	975	764	250	260	2540	768	1490	475	345	245	103	143
29	833	790	270	220	---	679	3350	440	311	1120	107	150
30	638	712	290	190	---	908	4830	406	319	560	115	135
31	535	---	270	170	---	1780	---	373	---	332	104	---
TOTAL	10147	14802	26836	5680	80090	25483	46369	64678	32223	9887	6707	7896
MEAN	327	493	866	183	2860	822	1546	2086	1074	319	216	263
MAX	2750	1080	1810	270	11300	2120	4830	6000	3470	1120	716	632
MIN	58	315	250	150	180	457	683	373	311	131	103	108
CFSM	.60	.90	1.58	.33	5.20	1.50	2.81	3.79	1.95	.58	.39	.48
IN.	.69	1.00	1.82	.38	5.42	1.72	3.14	4.37	2.18	.67	.45	.53

CAL YR 1980 TOTAL 268348 MEAN 733 MAX 4320 MIN 58 CFSM 1.33 IN 18.15
WTR YR 1981 TOTAL 330796 MEAN 906 MAX 11300 MIN 58 CFSM 1.65 IN 22.37

03010655 OSWAYO CREEK AT SHINGLEHOUSE, PA

LOCATION.--Lat 41°57'42", long 78°11'54", Potter County, Hydrologic Unit 05010001, on right bank 200 ft (61 m) upstream from bridge on State Highway 44 at Shinglehouse, and 0.7 mi (1.1 km) upstream from Honeoye Creek.

DRAINAGE AREA.--98.7 mi^2 (256 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,460.34 ft (445.112 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good except those for winter periods, and for the period of no gage-height record, Oct. 22 to Dec. 8, which are fair. Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--7 years, 163 ft^3/s (4.616 m^3/s), 22.43 in/yr (570 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,780 ft^3/s (78.7 m^3/s) Feb. 20, 1981, gage height, 10.34 ft (3.152 m); minimum, 5.1 ft^3/s (0.144 m^3/s) Oct. 10, 1980, gage height, 3.12 ft (0.951 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 9	0630	ice jam		8.06	2.457	Feb. 23	0615	1520	43.0	8.46	2.579
Feb. 20	0500	*2780	78.7	*10.34	3.152						

Minimum discharge, 5.1 ft^3/s (0.144 m^3/s) Oct. 10, gage height, 3.12 ft (0.951 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	58	70	37	23	250	274	588	49	192	36	17
2	7.6	48	120	40	40	220	288	492	54	186	32	19
3	9.2	40	220	45	44	200	264	392	69	234	37	27
4	10	42	150	39	36	190	240	334	188	210	83	25
5	8.4	45	150	34	32	174	220	282	119	186	54	37
6	7.6	40	140	32	27	155	192	260	107	149	45	34
7	7.6	37	130	29	25	137	160	214	92	121	40	39
8	8.0	44	150	28	23	124	143	174	78	98	46	62
9	6.4	52	194	27	22	113	142	149	151	83	43	86
10	5.7	60	196	25	21	106	130	136	109	72	36	61
11	6.0	50	182	24	80	100	123	336	95	61	34	51
12	8.0	43	168	27	230	92	128	758	83	53	34	46
13	11	42	166	30	200	107	178	634	74	45	29	40
14	11	40	146	34	170	94	238	462	112	34	26	38
15	10	39	130	32	160	85	280	798	430	28	26	35
16	10	36	120	30	150	97	298	714	370	25	41	31
17	8.0	34	100	28	300	86	296	516	320	21	29	29
18	8.8	40	92	27	600	95	268	386	232	18	26	27
19	14	39	64	26	120	98	224	318	180	22	24	26
20	11	38	74	26	2500	88	198	260	145	35	22	26
21	14	37	70	24	1600	81	168	212	142	54	21	24
22	12	36	66	23	1100	72	149	172	121	56	22	25
23	11	54	74	24	1300	72	178	145	98	29	21	26
24	10	72	62	24	1000	72	200	124	81	25	20	22
25	200	100	54	25	560	69	202	109	73	24	19	20
26	260	78	50	26	400	67	202	100	65	24	19	20
27	170	60	46	33	330	97	196	85	56	29	18	20
28	120	62	42	25	280	91	240	77	48	44	18	21
29	100	64	40	18	---	103	504	71	43	128	19	20
30	84	62	50	19	---	149	609	63	56	60	17	18
31	70	---	56	21	---	236	---	57	---	44	17	---
TOTAL	1226.9	1492	3392	882	11373	3720	6932	9418	3840	2390	954	972
MEAN	39.6	49.7	109	28.5	406	120	231	304	128	77.1	30.8	32.4
MAX	260	100	220	45	2500	250	609	798	430	234	83	86
MIN	5.7	34	40	18	21	67	123	57	43	18	17	17
CFSM	.40	.50	1.10	.29	4.11	1.22	2.34	3.08	1.30	.78	.31	.33
IN.	.46	.56	1.28	.33	4.29	1.40	2.61	3.55	1.45	.90	.36	.37

CAL YR 1980 TOTAL 38153.7 MEAN 104 MAX 936 MIN 5.7 CFSM 1.05 IN 14.38
WTR YR 1981 TOTAL 46591.9 MEAN 128 MAX 2500 MIN 5.7 CFSM 1.30 IN 17.56

03011020 ALLEGHENY RIVER AT SALAMANCA, NY

LOCATION.--Lat 42°09'23", long 78°42'56", Cattaraugus County, Hydrologic Unit 05010001, on left bank 230 ft (70 m) upstream from Main Street bridge in Salamanca, 1.3 mi (2.1 km) downstream from Great Valley Creek, and 1.6 mi (2.6 km) upstream from Little Valley Creek.

DRAINAGE AREA.--1,608 mi^2 (4,165 km^2).

PERIOD OF RECORD.--September 1903 to current year. Monthly discharge only for some periods, published in WSP 1305. Prior to October 1964, published as "at Red House."

REVISED RECORDS.--WSP 1385: 1907, 1090-12, 1913(M), 1914-15, 1916-17(M), 1925, 1927. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,358.00 ft (413.918 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Sept. 3, 1917, nonrecording gage and Sept. 4, 1917 to Sept. 30, 1964, water-stage recorder at site 7.5 mi (12.1 km) downstream at different datum. Oct. 1, 1964 to Sept. 30, 1967, at present site at datum 0.04 ft (0.012 m) lower.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--78 years, 2,784 ft^3/s (78.84 m^3/s), 23.51 in/yr (597 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,000 ft^3/s (2,070 m^3/s) June 23, 1972, gage height, 24.01 ft (7.318 m) from floodmarks; minimum daily, 79 ft^3/s (2.24 m^3/s) Sept. 10, 11, 1971.

EXTREMES FOR CURRENT YEAR.-- Peak discharges above base of 17,000 ft^3/s (481 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 18	0100	ice jam		10.46	3.188	Feb. 21	0500	*26800	759	*12.94	3.944

Minimum discharge, 238 ft^3/s (6.74 m^3/s) Oct. 11, gage height, 2.85 ft (0.869 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	258	2340	2270	960	640	5910	4950	10100	1020	1300	778	301
2	264	2010	3460	920	700	4850	4610	9620	920	1260	624	316
3	258	1720	5560	860	760	4080	3980	7690	1160	1300	544	465
4	264	1570	4940	820	720	3390	3460	5700	4980	1400	674	613
5	270	1690	3820	780	680	3180	3620	4250	5410	1370	833	739
6	275	1660	3470	760	640	2900	3340	3610	4440	1460	712	891
7	264	1600	3370	720	640	2590	2920	3370	2750	1330	544	849
8	258	2540	4540	700	640	2320	2560	2820	2040	990	511	843
9	253	2880	6240	680	700	2140	2350	2420	3080	816	996	1460
10	242	3570	5430	640	820	2020	2290	2150	3410	709	1100	1410
11	242	3160	4590	620	1000	1950	2110	3350	2300	625	828	1080
12	258	2490	3780	580	5000	1860	2080	11500	1820	555	919	920
13	469	2100	3470	560	2700	1940	3120	10600	1550	504	762	819
14	566	1910	3150	520	2100	1990	4240	9370	2450	464	651	751
15	511	1810	2570	520	2100	1790	5840	8150	6150	429	946	764
16	450	1610	2480	520	2700	2130	5080	7670	6570	396	1240	699
17	393	1430	2240	540	6000	2050	4620	7120	4830	374	1080	674
18	430	1370	2000	560	12000	1700	4830	5940	3790	357	776	661
19	544	1320	1900	580	17200	1680	4310	4450	2860	345	591	589
20	612	1280	1390	600	23900	1680	3590	3560	2330	366	492	577
21	935	1220	1190	620	26200	1570	3160	2970	2020	562	436	566
22	1030	1160	1200	620	24600	1520	2790	2530	1950	761	392	935
23	1010	1150	1200	600	22300	1540	3090	2180	1780	652	363	1190
24	792	1440	1100	580	20300	1630	4920	1900	1500	487	347	950
25	2800	3940	1000	560	16000	1670	5030	1690	1280	388	329	725
26	13800	3830	920	600	12500	1640	4320	1590	1140	365	317	577
27	9200	2980	900	720	9220	2310	3750	1480	1010	492	306	500
28	5210	2650	920	820	6980	2670	3690	1440	888	583	298	469
29	4040	2590	940	760	---	2510	8790	1330	787	2770	305	459
30	3130	2380	1000	680	---	2840	10100	1220	742	2050	304	421
31	2730	---	1000	620	---	5500	---	1150	---	1140	330	---
TOTAL	51758	63400	82040	20620	219740	77550	123540	142920	76957	26600	19328	22213
MEAN	1670	2113	2646	665	7848	2502	4118	4610	2565	858	623	740
MAX	13800	3940	6240	960	26200	5910	10100	11500	6570	2770	1240	1460
MIN	242	1150	900	520	640	1520	2080	1150	742	345	298	301
CFSM	1.04	1.31	1.65	.41	4.88	1.56	2.56	2.87	1.60	.53	.39	.46
IN.	1.20	1.47	1.90	.48	5.08	1.79	2.86	3.31	1.78	.62	.45	.51

CAL YR 1980 TOTAL 803794 MEAN 2196 MAX 15300 MIN 242 CFSM 1.37 IN 18.60
WTR YR 1981 TOTAL 926666 MEAN 2539 MAX 26200 MIN 242 CFSM 1.58 IN 21.44

03011800 KINZUA CREEK NEAR GUFFEY, PA

LOCATION.--Lat 41°45'59", long 78°43'08", McKean County, Hydrologic Unit 05010001, in Allegheny National Forest, on right bank 130 ft (40 m) upstream from bridge on U.S. Highway 219, 0.2 mi (0.3 km) upstream from Wintergreen Run, 1.0 mi (1.6 km) downstream from Pine Run, and 1.5 mi (2.4 km) west of Guffey.

DRAINAGE AREA.--46.4 mi^2 (120.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, published as "at Tallyho," water years 1959-65. October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,540 ft (469 m) from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--16 years, 77.7 ft^3/s (2.200 m^3/s), 22.74 in/yr (578 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,220 ft^3/s (148 m^3/s) June 22, 1972, gage height, 8.99 ft (2.740 m), from rating curve extended above 1,300 ft^3/s (37 m^3/s) on basis of slope-area measurement at gage height 8.33 ft (2.539 m); minimum, 2.0 ft^3/s (0.057 m^3/s) July 29, 1978, minimum gage height, 1.88 ft (0.573 m) Aug. 27, 28, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 25	2130	715	20.2	4.73	1.442
Feb. 20	1130	*1370	38.8	*5.74	1.750
Feb. 23	2000	570	16.1	4.44	1.353
Apr. 29	0200	1160	32.8	5.47	1.667
May 11	1930	650	18.4	4.60	1.402
June 4	0030	730	20.7	4.76	1.451

Minimum discharge, 7.6 ft^3/s (0.215 m^3/s) Aug. 27, 28, gage height, 1.88 ft (0.573 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	80	72	36	12	149	127	290	25	23	16	9.0
2	15	71	141	30	24	119	117	230	60	21	14	19
3	16	61	172	27	36	103	101	165	119	22	13	21
4	18	65	120	24	33	92	92	131	344	24	14	35
5	16	62	111	21	28	86	107	111	111	35	14	37
6	15	53	111	19	21	77	90	108	86	40	12	31
7	15	52	116	18	16	68	75	92	69	24	11	21
8	15	60	202	18	13	61	66	75	57	21	24	43
9	14	77	230	17	12	58	65	65	161	20	21	51
10	14	95	180	17	11	52	60	61	86	18	16	26
11	15	71	141	18	24	51	60	350	60	16	20	20
12	16	60	122	20	40	50	71	410	48	14	18	18
13	22	56	111	21	70	75	129	252	43	13	14	16
14	24	57	96	23	62	62	161	192	151	12	12	18
15	22	56	80	22	54	53	137	185	192	12	26	19
16	18	49	66	21	46	66	114	149	103	12	39	16
17	16	44	56	20	45	51	143	117	103	11	22	21
18	27	46	50	19	45	51	159	98	74	11	16	18
19	26	43	42	18	60	51	117	84	61	11	13	15
20	20	41	37	17	200	51	101	74	52	20	11	17
21	21	40	43	16	735	45	92	65	49	33	10	16
22	20	38	52	16	478	42	83	56	53	17	10	16
23	19	37	62	15	474	46	143	49	44	12	9.0	17
24	18	74	54	14	394	49	147	43	36	11	9.0	15
25	285	120	49	14	270	45	129	40	33	11	8.5	15
26	370	80	45	17	200	46	108	39	30	13	8.1	12
27	161	71	42	21	157	98	96	36	27	15	8.1	12
28	149	72	45	25	170	71	358	35	24	50	9.0	15
29	127	72	52	20	---	65	842	32	23	135	10	14
30	103	68	60	17	---	143	426	30	21	36	9.0	12
31	90	---	46	13	---	163	---	28	---	21	10	---
TOTAL	1722	1871	2806	614	3730	2237	4516	3692	2345	734	446.7	615.0
MEAN	55.5	62.4	90.5	19.8	133	72.2	151	119	78.2	23.7	14.4	20.5
MAX	370	120	230	36	735	163	842	410	344	135	39	51
MIN	14	37	37	13	11	42	60	28	21	11	8.1	9.0
CFSM	1.20	1.35	1.95	.43	2.87	1.56	3.25	2.57	1.69	.51	.31	.44
IN.	1.38	1.50	2.25	.49	2.99	1.79	3.62	2.96	1.88	.59	.36	.49

CAL YR 1980 TOTAL 28581.0 MEAN 78.1 MAX 860 MIN 14 CFSM 1.68 IN 22.91
WTR YR 1981 TOTAL 25328.7 MEAN 69.4 MAX 842 MIN 8.1 CFSM 1.50 IN 20.31

03011800 KINZUA CREEK NEAR GUFFEY, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
MAR									
25...	1400	41	390	7.0	4.0	13	11	239	.33
AUG									
12...	1330	17	940	7.0	20.0	11	11	625	.85

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAR									
25...	26.5	470	390	80	100	0	100	3	.33
AUG									
12...	29.4	680	550	130	100	40	60	9	.42

03012550 ALLEGHENY RIVER AT KINZUA DAM, PA

LOCATION.--Lat 41°50'29", long 79°00'44", Warren County, Hydrologic Unit 05010001, in Allegheny National Forest on left bank 0.5 mi (0.8 km) downstream from Kinzua Dam, 2.5 mi (4.0 km) east of Hemlock, and at mile 197.6 (317.9 km).

DRAINAGE AREA.--2,180 mi^2 (5,646 km^2).

PERIOD OF RECORD.--October 1935 to current year. Published as "near Kinzua" (station 03012500) prior to October 1968 and as "at Warren" (station 03012600) October 1968 to September 1972.

REVISED RECORDS.--WSP 1275: 1936-37. WDR PA-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,192.55 ft (363.489 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Nov. 1, 1964, water-stage recorder at site 1.0 mi (1.6 km) upstream at different datum. Nov. 1, 1964, to Aug. 4, 1966, non-recording gage, and Aug. 5, 1966, to Sept. 30, 1972, water-stage recorder at site 6.4 mi (10.3 km) downstream at different datum.

REMARKS.--Records good. Flow regulated since October 1965 by Allegheny Reservoir (station 03012520), 0.5 mi (0.8 km) upstream. Several observations of water temperature were made during the year.

COOPERATION.--Three discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--46 years, 3,820 ft^3/s (108.2 m^3/s), 23.79 in/yr (604 mm/yr), adjusted for storage since October 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,500 ft^3/s (1,710 m^3/s) Mar. 8, 1956, gage height, 19.95 ft (6.081 m), site and datum then in use; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,500 ft^3/s (524 m^3/s) Feb. 27, gage height, 13.08 ft (3.987 m); minimum daily, 509 ft^3/s (14.4 m^3/s) July 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1700	4250	2030	3380	4700	17900	1380	13500	1500	588	2340	2160
2	1900	4070	2020	3460	3380	17700	1390	14500	642	509	2290	2140
3	2470	4230	2060	3400	2180	17500	1390	14600	648	778	2260	2150
4	2760	4270	2050	3360	1660	17200	1390	14500	1230	1270	1820	2130
5	2730	4220	2050	3450	1660	17100	1420	12300	2740	1270	1090	2070
6	2690	4150	2090	3380	1640	15400	1420	8460	3800	1120	830	2050
7	2710	4110	2100	3970	1640	12800	1420	5560	3780	962	814	2090
8	2620	4160	2810	5110	1660	10600	1430	3490	3710	975	868	2100
9	2570	4130	4220	5950	1640	8570	1440	2780	3800	975	808	2040
10	2520	4170	5680	6230	1640	6890	1440	2780	3790	964	817	1040
11	2510	4110	6330	6190	1640	4970	1430	1880	3780	955	818	2120
12	2400	4180	6660	6290	1640	4210	1420	2940	3780	955	783	2060
13	2380	4220	6520	6180	1640	4090	1420	5680	3740	960	855	2060
14	2350	4170	6600	6230	1680	4130	1430	7720	3740	957	831	2060
15	2320	4090	6370	6260	1680	4040	1460	8260	4090	955	1250	2080
16	2280	3990	6340	6200	1700	4100	2150	8210	5150	1110	1590	2060
17	2120	4080	6360	6230	1740	3870	2760	8250	5860	1270	956	2080
18	2020	4060	6360	6290	1760	2940	2870	8240	5830	1260	853	1900
19	2050	4010	5790	6340	1840	2040	2860	8240	5830	1250	663	1740
20	2040	4170	4170	6370	1920	2050	2860	8220	5790	1260	665	1720
21	2030	4010	3370	6180	1960	2040	3420	6940	5760	1030	877	1720
22	2030	4060	3470	6120	2000	2020	4180	4480	5690	1240	1270	1720
23	2030	4000	3350	5950	2050	1830	6570	2980	4530	1230	1250	1720
24	2030	3290	3410	5640	2960	1340	6980	2570	3000	1240	1270	1720
25	2050	2610	3380	5500	5930	1340	6950	2260	2790	1230	1270	1700
26	2350	2560	3480	5560	10500	1330	7900	1940	2780	1360	1270	1680
27	3180	2660	3380	5390	15700	1340	8220	1920	2670	1680	1270	1680
28	3560	2690	3370	5480	18100	1360	8240	1920	2630	1780	1540	1700
29	1860	2690	3530	5420	---	1370	8200	1950	1940	1950	1830	1700
30	4230	2300	3530	5390	---	1360	10200	1950	798	2230	1820	1740
31	4260	---	3380	5340	---	1370	---	1920	---	2420	2000	---
TOTAL	76750	113710	126260	166240	98240	194800	105640	190940	105818	37733	38868	56930
MEAN	2476	3790	4073	5363	3509	6284	3521	6159	3527	1217	1254	1898
MAX	4260	4270	6660	6370	18100	17900	10200	14600	5860	2420	2340	2160
MIN	1700	2300	2020	3360	1640	1330	1380	1880	642	509	663	1040
†	+112	-867	-334	-4430	+8080	-2570	+2360	-307	+125	-199	-519	-846
MEAN‡	2588	2923	3739	933	11590	3714	5881	5852	3652	1018	735	1052
CFSM‡	1.19	1.34	1.72	.43	5.32	1.70	2.70	2.68	1.68	.47	.34	.48
IN.‡	1.37	1.50	1.98	.50	5.54	1.96	3.01	3.09	1.87	.54	.39	.54

CAL YR 1980 TOTAL 1112381 MEAN 3039 MAX 18000 MIN 570 ADJ +117 MEAN‡ 3156 CFSM‡ 1.45 IN.‡ 19.72
WTR YR 1981 TOTAL 1311929 MEAN 3594 MAX 18100 MIN 509 ADJ -17.1 MEAN‡ 3577 CFSM‡ 1.64 IN.‡ 22.29

† Change in contents, equivalent in cubic feet per second, in Allegheny River Reservoir.
‡ Adjusted for change in reservoir contents.

03015000 CONEWANGO CREEK AT RUSSELL, PA

LOCATION.--Lat 41°56'17", long 79°08'00", Warren County, Hydrologic Unit 05010002, on left bank at highway bridge in Russell, 0.5 mi (0.8 km) upstream from Akeley Run, and 8.0 mi (12.9 km) upstream from mouth.

DRAINAGE AREA.--816 mi² (2,113 km²).

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for October, November 1939, published in WSP 1305.

REVISED RECORDS.--WSP 1083: 1936 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,221.77 ft (372.395 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 10, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Chautauqua Lake. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--42 years, 1,508 ft³/s (42.71 m³/s), 25.09 in/yr (637 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft³/s (408 m³/s) Apr. 7, 1947, gage height, 10.69 ft (3.258 m); minimum not determined; minimum daily, 57 ft³/s (1.61 m³/s) Oct. 17, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 10.9 ft (3.32 m) from floodmark, discharge, 14,600 ft³/s (414 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,300 ft³/s (377 m³/s) Feb. 22, gage height, 10.30 ft (3.139 m); minimum daily, 139 ft³/s (3.94 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	4750	1860	1200	1110	6880	2510	4380	1010	333	720	213
2	217	3950	2730	1050	1430	5920	2250	4120	680	333	413	221
3	209	2990	3420	900	1650	5100	1830	3510	904	287	298	536
4	209	2280	3320	780	1520	4340	1380	2730	3210	261	287	872
5	209	2010	3140	740	1520	3560	1630	2060	2270	253	433	984
6	221	2090	2620	960	1400	2880	1730	1480	1570	261	528	920
7	287	2020	2360	800	1340	2420	1550	1350	1180	265	493	912
8	315	2640	3320	700	1230	2100	1330	1220	904	237	380	736
9	293	3110	3960	800	1180	1960	1160	1080	2270	213	552	656
10	264	3420	3890	540	1100	1840	1060	976	2080	209	912	544
11	237	3330	3810	520	1680	1880	1000	904	1440	197	648	427
12	242	2900	3570	500	2750	1800	1020	1660	1190	189	1490	353
13	575	2460	3120	500	2710	1890	2000	1770	1060	181	1540	298
14	966	2080	2670	500	2550	1840	2330	1610	2450	177	1160	528
15	975	1940	2210	510	2300	1680	3310	1490	2250	169	776	776
16	858	1790	1820	510	2230	1790	3110	1660	1830	161	1120	616
17	679	1620	1630	520	3750	1820	2720	1570	1390	157	1290	544
18	598	1470	1480	520	4970	1620	2560	1310	1050	149	816	513
19	622	1380	1400	540	5970	1480	2660	1110	736	139	480	480
20	743	1340	1340	540	7920	1420	2330	984	536	145	360	467
21	1680	1320	1280	540	10900	1360	1690	904	447	221	292	592
22	2310	1360	1480	560	13000	1340	1410	824	413	257	257	1340
23	2270	1390	1200	580	13300	1390	1400	632	800	249	233	1590
24	1960	1590	1250	600	13200	1610	2950	520	1320	249	221	1350
25	2590	2670	1100	700	12100	1830	3440	460	1140	233	213	1060
26	4720	2690	1000	872	10600	1940	3490	413	928	209	217	872
27	4880	2430	860	1290	8980	2340	3370	393	808	213	217	808
28	5230	2080	1100	1470	7860	2380	3340	1220	552	298	205	816
29	5500	1890	960	1400	---	2200	4510	1510	380	1080	201	768
30	5490	1800	1000	1220	---	2080	4540	1290	314	1430	201	2730
31	5230	---	1100	1110	---	2450	---	1130	---	1290	213	---
TOTAL	50804	68790	66000	23972	140250	75140	69610	46270	37112	10045	17166	23522
MEAN	1639	2293	2129	773	5009	2424	2320	1493	1237	324	554	784
MAX	5500	4750	3960	1470	13300	6880	4540	4380	3210	1430	1540	2730
MIN	209	1320	860	500	1100	1340	1000	393	314	139	201	213
†	+102	-234	-47.8	-111	+674	-361	+171	-87.0	-22.5	-19.5	-32.7	-4.5
MEAN‡	1741	2059	2081	662	5683	2063	2491	1406	1214	304	521	780
CFSM‡	2.13	2.52	2.55	.81	6.96	2.53	3.05	1.72	1.49	.37	.64	.96
IN.‡	2.46	2.81	2.94	.93	7.25	2.92	3.40	1.98	1.66	.43	.74	1.07

CAL YR 1980 TOTAL 577114 MEAN 1577 MAX 6210 MIN 154 ADJ -11.8 MEAN‡ 1565 CFSM‡ 1.92 IN.‡ 26.13
WTR YR 1981 TOTAL 628681 MEAN 1722 MAX 13300 MIN 139 ADJ +0.4 MEAN‡ 1722 CFSM‡ 2.11 IN.‡ 28.59

† Change in contents, equivalent in cubic feet per second, in Chautauqua Lake.
‡ Adjusted for change in reservoir contents.

03015500 BROKENSTRAW CREEK AT YOUNGSVILLE, PA

LOCATION.--Lat 41°51'09", long 79°19'03", Warren County, Hydrologic Unit 05010001, on right bank 150 ft (46 m) downstream from bridge on Main Street at Youngsville, 500 ft (152 m) upstream from Matthews Run, and 3.7 mi (6.0 km) upstream from mouth. Records include flow of Matthews Run.

DRAINAGE AREA.--321 mi^2 (831 km^2), including that of Matthews Run.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1305. Flow of Matthews Run included in records since October 1938.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1083: 1913 (M). WSP 1275: 1920, 1932, 1936. WSP 1305: 1910-15, 1928-29.

GAGE.--Water-stage recorder. Datum of gage is 1,186.92 ft (361.773 m) National Geodetic Vertical Datum, adjustment of 1907. Prior to Sept. 30, 1933, nonrecording gage at site 150 ft (46 m) upstream at datum 2.00 ft (0.610 m) higher. Oct. 1, 1933, to June 15, 1939, nonrecording gage at site 150 ft (46 m) upstream, and June 16, 1939, to Sept. 30, 1961, water-stage recorder at present site, both at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--72 years, 582 ft^3/s (16.48 m^3/s), 24.62 in/yr (625 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 18,000 ft^3/s (510 m^3/s) Mar. 25, 1913, gage height, 14.2 ft (4.33 m), present datum; minimum observed, 19 ft^3/s (0.54 m^3/s) Oct. 14, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,500 ft^3/s (127 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 20	1700	*10300	292	*a10.60	3.231	Apr. 29	0330	6060	172	7.97	2.429

Minimum daily discharge, 70 ft^3/s (1.98 m^3/s) July 19.

a Ice jam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	474	499	220	260	1160	884	1800	123	594	218	117
2	92	362	1710	190	400	932	625	738	113	212	155	245
3	92	301	2220	180	600	716	492	440	365	157	133	488
4	100	297	1440	180	500	548	455	332	1950	143	125	626
5	100	362	897	180	420	541	1200	272	1510	221	113	1300
6	98	442	677	175	330	492	1140	284	674	332	105	1230
7	94	322	740	175	270	443	772	304	340	206	100	1140
8	92	583	2080	175	230	407	576	236	242	145	125	920
9	88	982	2500	170	220	377	479	194	1840	121	245	634
10	86	958	1930	170	210	383	425	173	1960	107	288	415
11	84	826	1190	170	360	395	377	233	1230	97	264	290
12	109	547	777	165	600	371	461	420	435	91	452	200
13	227	413	692	160	960	479	1120	328	300	86	328	330
14	244	378	633	165	800	492	2270	236	1660	83	206	700
15	178	442	461	170	680	395	2310	324	2100	78	257	1500
16	159	395	499	170	580	583	1680	482	1050	74	855	940
17	144	322	407	175	1100	611	917	420	610	74	650	600
18	172	289	330	180	1900	407	876	280	380	71	320	350
19	176	266	280	180	3000	371	651	218	288	70	209	250
20	159	254	230	180	4400	340	474	182	236	74	155	340
21	198	258	320	190	7810	320	376	155	215	91	133	300
22	326	273	380	190	4500	325	315	137	257	117	119	740
23	244	293	330	195	3730	371	731	123	264	95	107	780
24	181	506	380	190	3550	485	1960	111	212	81	102	500
25	1250	1220	430	250	2620	590	1970	103	185	73	103	300
26	2780	1060	360	330	1510	685	1300	103	173	80	99	230
27	2750	626	310	432	1010	1300	719	150	155	107	94	270
28	2010	493	260	472	1060	1310	1780	370	139	714	92	330
29	1330	467	240	401	---	940	5200	308	133	2080	99	270
30	882	436	300	313	---	908	3330	200	150	754	99	230
31	633	---	260	260	---	1170	---	150	---	350	129	---
TOTAL	15172	14847	23762	6753	43610	18847	35865	9806	19289	7578	6479	16565
MEAN	489	495	767	218	1558	608	1196	316	643	244	209	552
MAX	2780	1220	2500	472	7810	1310	5200	1800	2100	2080	855	1500
MIN	84	254	230	160	210	320	315	103	113	70	92	117
CFSM	1.52	1.54	2.39	.68	4.85	1.89	3.73	.98	2.00	.76	.65	1.72
IN.	1.76	1.72	2.75	.78	5.05	2.18	4.16	1.14	2.24	.88	.75	1.92

CAL YR 1980 TOTAL 219488 MEAN 600 MAX 4530 MIN 50 CFSM 1.87 IN 25.44
WTR YR 1981 TOTAL 218573 MEAN 599 MAX 7810 MIN 70 CFSM 1.87 IN 25.33

03015500 BROKENSTRAW CREEK AT YOUNGSVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1968 to September 1970, October 1975 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
NOV									
06...	1315	400	170	7.2	4.5	72	17	--	--
DEC									
16...	1030	532	160	7.3	.5	48	15	86	.12
29...	1040	--	--	--	--	--	--	--	--
JAN									
27...	1500	437	200	7.6	.0	40	15	102	.14
MAR									
02...	1700	416	168	6.6	4.0	54	14	93	.13
APR									
28...	1600	1840	75	7.1	11.0	50	11	55	.07
MAY									
20...	1200	--	--	--	--	--	--	--	--
JUN									
16...	1630	1420	140	7.1	20.0	46	10	75	.10
SEP									
03...	1400	454	155	--	20.0	--	14	105	.14

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV									
06...	--	280	160	120	10	0	10	5	5.4
DEC									
16...	124	220	140	80	100	90	10	4	5.7
29...	--	--	--	--	--	--	--	15	--
JAN									
27...	120	260	230	30	20	0	20	5	5.9
MAR									
02...	104	270	230	40	20	10	10	1	1.1
APR									
28...	273	4100	4000	90	160	140	20	110	546
MAY									
20...	--	--	--	--	--	--	--	4	--
JUN									
16...	288	1300	1100	220	60	40	20	26	100
SEP									
03...	129	660	470	190	30	--	<10	19	23

DATE	DIS-CHARGE, IN CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN			
03...	365	61	284
04...	1950	256	1320
05...	1510	45	188
06...	674	20	40
07...	340	10	9.4
08...	242	11	7.0
09...	1840	106	571
10...	1960	67	344
11...	1230	32	112
12...	435	16	20
13...	300	9	7.5
14...	1660	206	1090
15...	2100	69	410
16...	1050	26	75
30...	150	7	3.9
JUL			
01...	594	47	88
02...	212	5	2.8
03...	157	3	1.3
04...	143	3	1.2
05...	221	38	45
06...	332	42	44

03016000 ALLEGHENY RIVER AT WEST HICKORY, PA

LOCATION.--Lat 41°34'15", long 79°24'29", Forest County, Hydrologic Unit 05010003, on right bank at downstream side of bridge on State Highway 127 at West Hickory, 0.6 mi (1.0 km) upstream from Siggins Run, 0.8 mi (1.3 km) downstream from East Hickory Creek, and at mile 158.9 (255.7 km).

DRAINAGE AREA.--3,660 mi^2 (9,479 km^2).

PERIOD OF RECORD.--October 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,059.90 ft (323.058 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Allegheny Reservoir 39 mi (63 km) upstream since October 1965 and since 1949 by Chautauqua Lake. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 6,602 ft^3/s (187.0 m^3/s), 24.49 in/yr (622 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 101,000 ft^3/s (2,860 m^3/s) Mar. 8, 1956, gage height, 17.20 ft (5.243 m); maximum gage height, 17.83 ft (5.435 m) Jan. 25, 1964 (backwater from ice); minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,600 ft^3/s (810 m^3/s) Apr. 29, gage height, 9.23 ft (2.813 m); maximum gage height, 10.34 ft (3.152 m) Feb. 13, (backwater from ice); minimum daily, 1,300 ft^3/s (36.8 m^3/s) July 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2200	10400	4900	5540	6700	27300	6020	22100	3830	1890	4070	2680
2	2240	9600	7000	5200	6020	25900	5350	22100	2860	1520	3520	2880
3	2670	8610	10200	4900	5000	24600	4660	20900	2120	1300	3360	3500
4	3300	7930	8480	4700	4300	23300	4140	19600	6460	1710	3230	4070
5	3320	7540	7340	4300	3600	22400	5350	17900	7320	2100	2440	5030
6	3270	7420	6480	4600	3300	21000	5620	13300	7390	2280	1890	4950
7	3270	7210	5900	5000	3200	17400	4830	9820	6400	1860	2070	4630
8	3270	7770	8690	6000	3100	14700	4270	6900	5700	1690	2500	4630
9	3240	8890	12500	8000	3000	12400	3900	4980	9110	1610	2070	4450
10	3140	9400	13000	7200	3000	10700	3570	4730	9560	1550	2290	3800
11	3090	9290	13200	6800	3600	8740	3380	4580	7990	1490	2320	3490
12	3110	8690	12600	8200	4900	7110	3350	5040	6460	1470	2540	3230
13	3220	8120	12000	6800	5200	7250	4830	8350	5920	1460	3120	3030
14	3680	7650	11300	7200	5000	7190	7050	10600	8890	1440	2800	3000
15	3730	7420	10400	7800	4600	6870	9210	11700	11900	1420	2520	3210
16	3600	7170	9000	7200	4500	7120	8610	12000	9800	1410	4090	4050
17	3380	6840	8200	7000	6400	7270	8160	12000	10000	1640	3590	3730
18	3190	6640	7600	7000	6400	6120	7770	11600	8890	1720	2720	3270
19	3140	6440	7200	7400	12000	4500	7380	11100	8220	1710	1920	2830
20	3140	6360	6400	7400	27700	4320	6920	10800	7780	1790	1520	2780
21	3460	6360	5650	7000	24900	4180	6880	10300	7580	1850	1350	2670
22	4560	6290	5800	7000	21500	4070	7460	7740	7490	1700	1650	2750
23	4740	6400	5510	7000	21700	4140	10200	5200	6990	1860	1860	3250
24	4450	6560	5510	6800	21200	3910	12900	4050	5360	1830	1810	3810
25	5830	7290	5410	6800	21000	4140	14100	3930	4500	1820	1800	3590
26	12400	7500	5370	7260	23100	4400	14700	3280	4300	1880	1780	3250
27	11300	6760	5690	7870	25300	5880	13800	3260	4070	2140	1780	2990
28	11700	6210	5340	8300	28300	6150	15800	4410	3820	2710	1820	2850
29	11300	5870	5200	8170	---	5610	26500	4950	3540	6390	2180	2840
30	11500	5620	5550	6980	---	5390	21400	4510	2180	4710	2230	2820
31	10900	---	5720	7220	---	6590	---	4160	---	4600	2350	---
TOTAL	155340	224250	243140	208640	308520	320650	258110	295890	196430	64550	75190	104060
MEAN	5011	7475	7843	6730	11020	10340	8604	9545	6548	2082	2425	3469
MAX	12400	10400	13200	8300	28300	27300	26500	22100	11900	6390	4090	5030
MIN	2200	5620	4900	4300	3000	3910	3350	3260	2120	1300	1350	2670
†	+214	-1100	-382	-4540	+8750	-2930	+2530	-394	+102	-218	-552	-850
MEAN‡	5225	6375	7461	2190	19770	7410	11130	9151	6650	1864	1873	2619
CFSM‡	1.43	1.74	2.04	.60	5.40	2.02	3.04	2.50	1.82	.51	.51	.72
IN.‡	1.65	1.94	2.35	.69	5.62	2.33	3.39	2.88	2.03	.59	.59	.80

CAL YR 1980 TOTAL 2200030 MEAN 6011 MAX 29600 MIN 1060 ADJ +105 MEAN‡ 6116 CFSM‡ 1.67 IN.‡ 22.75
WTR YR 1981 TOTAL 2454770 MEAN 6725 MAX 28300 MIN 1300 ADJ -16.7 MEAN‡ 6708 CFSM‡ 1.83 IN.‡ 24.86

† Change in contents, equivalent in cubic feet per second, in Allegheny Reservoir and Chautauqua Lake.
‡ Adjusted for change in reservoir contents.

03020000 TIONESTA CREEK AT TIONESTA DAM, PA

LOCATION.--Lat 41°28'44", long 79°26'26", Forest County, Hydrologic Unit 05010003, on left bank 100 ft (30 m) downstream from outlet tunnel at Tionesta Dam, 1.5 mi (2.4 km) southeast of Tionesta, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--479 mi² (1,241 km²).

PERIOD OF RECORD.--June 1940 to current year. Prior to October 1970, published as "at Tionesta Creek Dam."

GAGE.--Water-stage recorder. Datum of gage is 1,043.43 ft (318.037 m) National Geodetic Vertical Datum of 1929, unadjusted. July 1, 1954, to Dec. 6, 1960, water-stage recorder at present site and at datum 1.5 ft (0.46 m) higher. See WSP 1305 or 1725 for history of changes prior to July 1, 1954.

REMARKS.--Records good. Flow completely regulated since 1941 by Tionesta Lake 0.2 mi (0.3 km) upstream. Several observations of water temperature were made during the year.

COOPERATION.--One discharge measurement furnished by Corps of Engineers.

AVERAGE DISCHARGE.--41 years, 878 ft³/s (24.86 m³/s); 24.89 in/yr (632 mm/yr), adjusted for storage since January 1941.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 13,500 ft³/s (382 m³/s) Mar. 12, 1964; maximum gage height, 11.31 ft (3.447 m) Mar. 13, 1964 (backwater from Allegheny River); minimum daily discharge, 0.4 ft³/s (0.011 m³/s) Feb. 28, 29, May 22 to June 16, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,000 ft³/s (198 m³/s) Feb. 25, gage height, 7.55 ft (2.301 m); minimum daily, 53 ft³/s (1.50 m³/s) July 14-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	1530	860	565	252	6400	1980	3800	560	279	550	123
2	79	1310	865	412	255	6140	1960	4810	560	279	228	186
3	79	1120	900	258	261	5940	1920	4760	575	279	112	408
4	78	775	1470	258	460	5080	1870	4520	780	279	112	735
5	78	580	2000	258	590	3710	1840	4380	895	279	115	890
6	75	422	1940	258	590	2550	1410	4190	895	279	115	880
7	72	273	1430	258	585	1930	1220	3430	895	279	115	880
8	72	273	956	258	585	1850	1060	2190	885	279	388	880
9	72	273	1460	258	580	1310	932	1120	956	279	565	1030
10	72	276	2020	258	575	545	932	575	1000	276	565	1600
11	73	366	2020	258	575	550	932	580	1700	172	560	1230
12	83	448	2000	258	585	550	926	795	2120	123	555	860
13	89	444	1960	258	740	555	932	900	2070	80	545	565
14	91	444	1910	258	895	560	944	905	2000	53	540	270
15	111	444	1290	258	890	560	1190	910	2610	53	525	273
16	130	444	570	258	885	565	1330	1220	3730	53	310	273
17	130	444	575	255	900	570	1340	1460	4060	55	123	276
18	130	440	580	255	956	570	1360	1430	3320	55	126	276
19	160	440	580	255	1040	570	1380	1410	2220	55	126	276
20	185	436	580	255	1210	570	1710	986	956	55	126	276
21	185	436	570	255	1300	565	2030	575	565	195	126	276
22	185	433	565	255	2080	565	1970	575	575	246	126	276
23	183	429	560	252	2950	565	1910	575	580	264	126	276
24	180	429	555	252	4030	565	1890	575	580	264	126	276
25	183	670	555	252	6120	565	1870	570	580	261	126	276
26	249	880	545	252	6860	565	1370	570	575	258	126	276
27	635	875	401	249	6720	580	910	565	388	258	110	273
28	820	875	252	252	6580	980	926	565	279	261	123	273
29	980	870	252	252	---	1260	1110	570	279	715	123	270
30	1430	870	255	252	---	1270	2060	570	279	845	123	270
31	1760	---	408	252	---	1770	---	565	---	825	123	---
TOTAL	8728	17949	30884	8384	50049	50325	43214	50646	37467	7933	7759	14929
MEAN	282	598	996	270	1787	1623	1440	1634	1249	256	250	498
MAX	1760	1530	2020	565	6860	6400	2060	4810	4060	845	565	1600
MIN	72	273	252	249	252	545	910	565	279	53	110	123
†	+90.4	-87.1	-9.92	-7.96	+798	-644	+453	-503	+6.1	+4.9	-5.2	-3.4
MEAN‡	372	511	986	262	2585	979	1893	1131	1255	261	245	495
CFSM‡	.78	1.07	2.06	.55	5.40	2.04	3.95	2.36	2.62	.54	.51	1.03
IN.‡	.90	1.19	2.37	.63	5.62	2.35	4.41	2.72	2.92	.62	.59	1.15

CAL YR 1980 TOTAL 318956 MEAN 871 MAX 5820 MIN 72 ADJ -10.8 MEAN‡ 860 CFSM‡ 1.80 IN.‡ 24.45
WTR YR 1981 TOTAL 328267 MEAN 899 MAX 6860 MIN 53 ADJ +0.2 MEAN‡ 899 CFSM‡ 1.88 IN.‡ 25.47

† Change in contents, equivalent in cubic feet per second, in Tionesta Lake.
‡ Adjusted for change in reservoir contents.

03020500 OIL CREEK AT ROUSEVILLE, PA

LOCATION.--Lat 41°28'54", long 79°41'44", Venango County, Hydrologic Unit 05010003, on right bank 100 ft (30 m) downstream from bridge on State Highway 8, about 300 ft (91 m) upstream from Cherrytree Run, and 1 mi (2 km) north of Rouseville. Records include flow of Cherrytree Run.

DRAINAGE AREA.--300 mi² (777 km²), including that of Cherrytree Run.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1932 to current year.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1053: 1936-37(M), 1943(M).

GAGE.--Water-stage recorder. Datum of gage is 1,028.32 ft (313.432 m) National Geodetic Vertical Datum of 1929. Prior to June 9, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--49 years, 534 ft³/s (15.12 m³/s), 24.17 in/yr (614 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft³/s (595 m³/s) Jan. 22, 1959, gage height, 11.97 ft (3.648 m); minimum observed, 22 ft³/s (0.62 m³/s) July 29, Sept. 5, 7, 1934; minimum gage height, 1.48 ft (0.451 m) Aug. 20, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 29	0830	*10500	297	*9.78	2.981	June 9	0500	6350	180	7.86	2.396

Minimum discharge, 70 ft³/s (1.98 m³/s), Oct. 10, 11, 12 gage height, 1.80 ft (0.549 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	331	440	220	700	952	810	1720	239	337	198	119
2	79	290	1340	150	1250	880	635	1210	364	209	154	325
3	79	255	2350	100	1400	716	520	884	321	169	142	727
4	86	278	1200	96	1500	558	468	710	927	179	158	1040
5	84	298	826	95	820	534	1530	615	591	550	130	2010
6	79	266	663	92	960	540	1120	668	414	765	115	1710
7	83	240	612	90	640	498	778	669	287	360	188	1940
8	83	290	1320	88	440	440	618	506	368	238	970	1040
9	77	379	1840	88	310	410	537	424	3600	188	666	1100
10	72	424	1430	88	260	430	478	381	1620	157	404	671
11	72	473	995	88	420	445	409	498	718	137	365	471
12	79	327	737	86	650	430	484	618	475	124	748	374
13	229	374	663	86	780	612	519	479	376	118	320	314
14	340	266	650	86	1000	688	1330	408	797	114	235	314
15	229	323	424	84	860	546	1840	561	3930	104	473	408
16	170	298	540	84	740	498	958	766	1760	99	1770	297
17	162	251	430	84	1100	471	928	612	1330	97	639	253
18	188	236	399	84	1600	369	1250	471	715	92	335	230
19	233	229	374	88	3900	361	831	395	511	89	247	208
20	165	218	270	88	9060	342	655	344	402	111	200	239
21	148	212	240	84	5760	328	550	307	336	192	169	228
22	165	226	200	86	3140	319	470	268	499	151	149	204
23	148	233	230	100	3060	382	729	239	451	101	137	214
24	126	294	210	210	4040	609	1810	217	306	88	125	192
25	1200	995	190	350	2920	607	1590	204	263	84	122	170
26	3580	703	190	580	1460	569	975	197	231	107	115	158
27	1400	462	180	960	1100	1350	717	240	202	152	107	153
28	880	435	170	660	996	981	2090	725	183	165	142	142
29	759	435	210	440	---	696	9070	501	168	2970	154	133
30	529	419	270	340	---	755	4090	357	180	710	120	156
31	409	---	330	320	---	1250	---	306	---	305	131	---
TOTAL	12008	10460	19923	6095	50866	18566	38789	16500	22564	9262	9928	15540
MEAN	387	349	643	197	1817	599	1293	532	752	299	320	518
MAX	3580	995	2350	960	9060	1350	9070	1720	3930	2970	1770	2010
MIN	72	212	170	84	260	319	409	197	168	84	107	119
CFSM	1.29	1.16	2.14	.66	6.06	2.00	4.31	1.77	2.51	1.00	1.07	1.73
IN.	1.49	1.30	2.47	.76	6.31	2.30	4.81	2.05	2.80	1.15	1.23	1.93

CAL YR 1980 TOTAL 199891 MEAN 546 MAX 4540 MIN 72 CFSM 1.82 IN 24.79
WTR YR 1981 TOTAL 230501 MEAN 632 MAX 9070 MIN 72 CFSM 2.11 IN 26.58

03020500 OIL CREEK AT ROUSEVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 04...	1445	250	170	7.7	8.0	--	--	52	15	100
DEC 31...	1000	311	175	7.0	.0	--	--	22	16	99
JAN 29...	1200	384	170	8.0	.0	--	--	24	16	120
MAR 17...	0900	487	155	7.4	1.0	--	--	34	16	87
APR 27...	1515	698	120	9.2	14.5	--	--	20	13	78
JUN 23...	1530	423	120	7.0	17.5	.1	5.0	50	12	105
SEP 01...	1545	116	205	--	26.0	--	--	--	16	122

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 04...	.14	67.5	290	210	80	20	10	10	8	5.4
DEC 31...	.13	83.1	270	160	110	30	10	20	2	1.7
JAN 29...	.16	124	510	420	90	50	0	50	5	5.2
MAR 17...	.12	114	280	210	70	50	10	40	9	12
APR 27...	.11	147	260	210	50	20	20	0	--	--
JUN 23...	.14	120	490	390	100	30	10	20	18	21
SEP 01...	.17	38.2	340	--	<40	30	--	<10	44	14

03021350 FRENCH CREEK NEAR WATTSBURG, PA

LOCATION.--Lat 42°00'55", long 79°46'58", Erie County, Hydrologic Unit 05010004, on right bank at downstream side of bridge on Tanner Road, 1,200 ft (366 m) east of State Highway 74, 1.1 mi (1.8 km) west of Pennsylvania-New York border, 1.5 mi (2.4 km) northwest of Wattsburg, 2.4 mi (3.9 km) above confluence with West Branch French Creek.

DRAINAGE AREA.--92.0 mi^2 (238.3 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,304.84 ft (397.715 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--7 years, 232 ft^3/s (6.570 m^3/s), 34.25 in/yr (870 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,350 ft^3/s (180 m^3/s) Sept. 14, 1979, gage height, 11.95 ft (3.642 m); minimum, 6.0 ft^3/s (0.170 m^3/s) July 24, 1979, gage height, 2.95 ft (0.899 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,610 ft^3/s (159 m^3/s) Feb. 20; maximum gage height, 11.36 ft (3.462 m) Feb. 19 (backwater from ice), no other peak above base of 2,500 ft^3/s (70.8 m^3/s); minimum discharge, 12 ft^3/s (0.34 m^3/s) July 15, gage height, 3.27 ft (0.997 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	130	256	120	120	331	193	279	50	28	40	19
2	28	106	801	100	140	224	135	180	41	25	31	28
3	29	93	743	90	310	153	101	135	69	24	26	51
4	29	100	331	80	270	122	91	111	373	24	23	74
5	30	206	216	80	220	124	378	93	137	25	22	156
6	33	159	167	80	170	117	235	202	66	26	21	497
7	31	140	410	80	130	104	158	150	47	25	22	201
8	30	783	1060	78	120	95	113	101	39	22	34	122
9	27	475	1010	78	110	93	97	81	1460	20	77	140
10	25	486	465	78	100	101	96	71	525	19	57	73
11	24	317	279	78	310	96	89	83	140	18	141	52
12	132	180	220	72	460	94	259	159	78	17	191	44
13	259	140	256	68	470	169	834	101	60	17	73	37
14	110	140	203	72	400	136	1080	77	71	17	116	261
15	120	180	151	72	300	121	809	141	131	15	185	556
16	99	133	130	72	270	315	265	227	92	15	306	175
17	65	104	110	70	600	158	228	167	95	15	114	85
18	67	93	96	72	1100	105	366	100	65	14	61	62
19	87	91	84	72	2100	93	204	75	48	14	44	51
20	234	89	74	74	3930	81	155	64	41	16	36	72
21	556	95	84	74	1710	84	132	57	38	19	31	65
22	295	111	94	76	1020	82	104	54	191	18	27	278
23	135	130	100	76	1550	105	414	46	295	18	25	297
24	89	336	96	78	1240	146	761	42	76	17	25	127
25	523	720	80	76	513	262	574	39	55	16	27	76
26	2020	291	88	76	320	372	274	37	54	22	25	60
27	862	176	92	190	245	726	174	42	43	27	22	108
28	486	153	86	260	329	399	521	217	37	153	21	132
29	384	167	94	180	---	256	1470	120	32	542	21	78
30	234	153	130	130	---	298	643	73	30	160	20	60
31	167	---	140	110	---	367	---	65	---	62	20	---
TOTAL	7239	6477	8146	2912	18557	5929	10953	3389	4479	1450	1886	4037
MEAN	234	216	263	93.9	663	191	365	109	149	46.8	60.8	135
MAX	2020	783	1060	260	3930	726	1470	279	1460	542	306	556
MIN	24	89	74	68	100	81	89	37	30	14	20	19
CFSM	2.54	2.35	2.86	1.02	7.21	2.08	3.97	1.19	1.62	.51	.66	1.47
IN.	2.93	2.62	3.29	1.18	7.50	2.40	4.43	1.37	1.81	.59	.76	1.63

CAL YR 1980 TOTAL 75929 MEAN 207 MAX 2020 MIN 15 CFSM 2.25 IN 30.70
WTR YR 1981 TOTAL 75454 MEAN 207 MAX 3930 MIN 14 CFSM 2.25 IN 30.51

03021410 WEST BRANCH FRENCH CREEK NEAR LOWVILLE, PA

LOCATION.--Lat 42°04'54", long 79°51'02", Erie County, Hydrologic Unit 05010004, on left bank on upstream side of highway bridge on Knoyle Road, 1,000 ft (300 m) downstream from Townley Run, 2.5 mi (4.0 km) southwest of Hornby and 4.2 mi (6.8 km) northwest of Lowville.

DRAINAGE AREA.--52.3 mi^2 (135.5 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (396 m) from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--7 years, 130 ft^3/s (3.682 m^3/s), 33.76 in/yr (857 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,390 ft^3/s (124 m^3/s) Mar. 21, 1978, gage height, 10.81 ft (3.295 m); minimum observed, 2.4 ft^3/s (0.068 m^3/s) June 27, 1979, gage height, 2.96 ft (0.902 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 25	2115	1910	54.1	10.12	3.085	June 9	0315	2090	59.2	10.18	3.103
Feb. 19	1830	*2790	79.0	*10.41	3.173						

Minimum discharge, 7.0 ft^3/s (0.20 m^3/s) Aug.19, gage height, 3.14 ft (0.957 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	64	169	58	66	194	143	131	26	16	21	15
2	13	49	374	52	110	131	63	73	18	14	18	85
3	13	41	398	49	230	83	40	49	18	14	19	206
4	14	50	190	46	180	80	35	41	73	15	20	97
5	32	121	106	45	150	60	284	36	38	20	17	179
6	31	103	68	45	115	58	163	164	21	17	15	280
7	28	94	212	45	105	53	71	108	19	14	15	331
8	24	375	442	44	96	49	44	55	23	13	20	81
9	30	292	528	44	88	49	40	36	980	11	24	82
10	25	232	258	43	80	55	37	34	382	11	21	48
11	47	186	118	43	150	52	35	40	83	10	21	37
12	217	91	96	43	350	50	113	44	27	10	32	31
13	220	61	124	42	290	117	383	47	21	9.7	18	28
14	76	65	102	41	220	81	520	38	23	8.8	63	87
15	68	87	108	40	200	69	464	60	83	8.3	71	170
16	57	59	80	40	180	184	129	154	101	8.3	118	58
17	39	45	51	41	400	99	101	123	220	8.3	40	48
18	71	40	49	42	700	63	162	52	38	8.0	23	35
19	67	40	46	41	1200	52	87	33	25	7.5	18	31
20	281	40	58	40	1790	107	57	29	20	8.3	15	50
21	400	47	72	41	1270	134	47	28	18	15	13	46
22	220	66	62	42	695	49	41	24	416	15	12	278
23	68	83	54	43	932	67	231	22	370	9.7	12	311
24	41	186	45	43	650	119	362	21	66	8.5	11	108
25	424	420	49	40	352	178	302	21	65	7.8	13	45
26	1200	236	54	70	217	262	124	20	52	8.5	12	38
27	548	91	50	150	160	446	65	19	35	21	11	36
28	262	84	44	120	184	305	354	72	29	51	11	43
29	205	101	47	96	---	161	756	52	24	235	13	35
30	121	89	64	80	---	201	418	34	17	102	12	31
31	82	---	62	72	---	307	---	32	---	32	17	---
TOTAL	4937	3538	4180	1681	11160	3915	5671	1692	3331	737.7	746	2950
MEAN	159	118	135	54.2	399	126	189	54.6	111	23.8	24.1	98.3
MAX	1200	420	528	150	1790	446	756	164	980	235	118	331
MIN	13	40	44	40	66	49	35	19	17	7.5	11	15
CFSM	3.04	2.26	2.58	1.04	7.63	2.41	3.61	1.04	2.12	.46	.46	1.88
IN.	3.51	2.52	2.97	1.20	7.94	2.78	4.03	1.20	2.37	.52	.53	2.10

CAL YR 1980 TOTAL 39275.6 MEAN 107 MAX 1200 MIN 9.8 CFSM 2.05 IN 27.94
WTR YR 1981 TOTAL 44538.7 MEAN 122 MAX 1790 MIN 7.5 CFSM 2.33 IN 31.68

03021520 FRENCH CREEK NEAR UNION CITY, PA

LOCATION.--Lat 41°54'28", long 79°53'49", Erie County, Hydrologic Unit 05010004, on left bank at upstream side of bridge on State Highway 97, 0.4 mi (0.6 km) upstream from mouth of South Branch French Creek, 0.9 mi (1.4 km) downstream from Union City Dam, and 3.2 mi (5.1 km) west of Union City.

DRAINAGE AREA.--221 mi^2 (572 km^2).

PERIOD OF RECORD.--October 1909 to current year. Published as North Branch French Creek at Kimmeytown May 1910 to September 1914, as "at Kimmeytown" October 1915 to September 1932, and as "at Carters Corners" (sta. 03021500) October 1932 to September 1971. Monthly discharge only for some periods published in WSP 1305.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1275: 1934, 1936-37 (M), 1939 (M), 1942 (M), WSP 1305: 1910-11, 1913, 1914 (M), 1915-16, 1925. 1928, WDR PA-79-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,191.16 ft (363.065 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Dec. 22, 1948, nonrecording gage at site 4.5 mi (7.2 km) upstream at datum 43.4 ft (13.23 m) higher Dec. 22, 1948, to Sept. 30, 1971, water-stage recordr at site 4.6 mi (7.4 km) upstream at datum 43.4 ft (13.23 m) higher. Prior to Oct. 11, 1974, at site 0.7 mi (1.1 km) downstream at different datum. Oct. 11, 1974 to Nov. 4, 1977 at site 0.7 mi (1.1 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Flood flow regulated beginning October 1971 by Union City Reservoir 0.2 mi (0.3 km) upstream, serving as a retarding basin. Several observations of water temperature were made during the year.

COOPERATION.--Two discharge measurement furnished by Corps of Engineers.

AVERAGE DISCHARGE.--72 year, 430 ft^3/s (12.18 m^3/s), 26.42 in/yr (671 mm/yr), adjusted for storage since 1971.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft^3/s (566 m^3/s) Apr. 5, 1947, gage height, 13.50 ft (4.115 m), site and datum then in use, by slope-area measurement of peak flow; maximum gage height observed, 16.0 ft (4.88 m) Feb. 20, 1918 (backwater from ice), site and datum then in use; minimum discharge observed, 3.9 ft^3/s (0.11 m^3/s) Aug. 15, 18-21, 1930.

EXTREMES FOR CURRENT YEAR.--Maxmium discharge, 4,430 ft^3/s (125 m^3/s) Feb. 21, gage height, 8.64 ft (2.633 m); minimum daily, 26 ft^3/s (0.736 m^3/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	1140	478	320	300	1830	890	1170	179	74	191	51
2	54	1040	775	260	400	1600	805	1140	142	65	81	52
3	52	866	1030	220	580	1420	600	1100	155	62	67	92
4	52	564	1050	200	640	1320	425	1030	460	64	62	500
5	54	435	1000	170	600	1270	525	946	530	86	61	382
6	83	493	890	150	500	1230	735	855	322	72	54	480
7	83	410	770	130	390	1190	655	790	158	67	51	680
8	74	579	963	110	310	1130	525	630	119	56	64	620
9	67	896	1130	105	270	1060	398	460	610	48	123	500
10	70	926	1190	100	250	976	322	286	1010	42	132	334
11	63	920	1160	96	400	880	266	243	1020	39	145	145
12	162	831	1110	94	760	710	342	342	946	36	370	117
13	574	598	1040	92	880	565	770	334	775	36	212	88
14	644	464	969	92	920	550	970	286	475	33	278	128
15	400	420	814	92	900	475	1080	318	306	31	435	595
16	280	395	584	92	900	510	1090	465	354	30	715	630
17	200	303	459	92	840	585	1060	550	306	29	635	435
18	140	249	317	94	1050	505	1020	510	378	28	370	182
19	200	229	250	94	1800	378	976	338	188	26	123	117
20	240	222	190	96	4180	302	905	215	126	32	86	121
21	781	232	190	98	4380	258	810	180	108	52	75	167
22	890	274	220	100	4090	302	615	150	147	43	67	274
23	808	321	240	100	3880	326	550	140	595	42	62	585
24	550	405	240	100	3750	415	845	130	660	34	55	610
25	444	803	190	105	3360	520	940	120	450	31	60	450
26	1110	932	200	140	2920	710	946	110	215	46	58	179
27	1310	866	220	250	2510	880	890	105	164	61	54	152
28	1340	675	200	540	2110	970	916	310	123	158	48	306
29	1320	550	215	540	---	964	1150	430	104	685	47	206
30	1280	503	280	440	---	916	1170	298	90	740	47	137
31	1220	---	320	340	---	900	---	215	---	535	47	---
TOTAL	14605	17541	18684	5452	43870	25647	23191	14196	11215	3383	4875	9315
MEAN	471	585	603	176	1567	827	773	458	374	109	157	311
MAX	1340	1140	1190	540	4380	1830	1170	1170	1020	740	715	680
MIN	52	222	190	92	250	258	266	105	90	26	47	51
†	+70.1	-67.4	-2.1	-0.4	+320	-257	+99.0	-129	-0.6	+2.7	-2.9	+3.9
MEAN‡	541	518	601	176	1887	570	872	329	373	112	154	315
CFSM‡	2.45	2.34	2.72	.80	8.54	2.58	3.95	1.49	1.69	.51	.70	1.42
IN.‡	2.82	2.61	3.14	.92	8.89	2.97	4.41	1.72	1.89	.59	.81	1.58

CAL YR 1980 TOTAL 187769 MEAN 513 MAX 1750 MIN 33 ADJ -8.0 MEAN‡ 505 CFSM‡ 2.28 IN.‡ 31.12
WTR YR 1981 TOTAL 191974 MEAN 526 MAX 4380 MIN 26 ADJ +0.3 MEAN‡ 526 CFSM‡ 2.38 IN.‡ 32.35

† Change in contents, equivalent in cubic feet per second, in Union City Reservoir.
‡ Adjusted for change in reservoir contents.

03022540 WOODCOCK CREEK AT BLOOMING VALLEY, PA

LOCATION.--Lat 41°41'26", long 80°02'54", Crawford County, Hydrologic Unit 05010004, on left bank at upstream side of bridge 0.7 mi (1.1 km) northeast of Blooming Valley, and 3.4 mi (5.5 km) upstream from Woodcock Creek Dam.

DRAINAGE AREA.--31.1 mi^2 (80.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,200 ft (366 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--7 years, 59.5 ft^3/s (1.685 m^3/s), 25.98 in/yr (660 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,980 ft^3/s (84.4 m^3/s) Feb. 17, 1976, gage height, 11.48 ft (3.499 m) from rating curve extended above 600 ft^3/s (17.0 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 12.27 ft (3.740 m) Feb. 25, 1977 (backwater from ice); minimum discharge, 2.9 ft^3/s (0.08 m^3/s) Aug. 31, Sept. 1, 1976, gage height, 5.49 ft (1.673 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (22.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 17	1900	ice jam		*11.08	3.377	July 28	1945	922	26.1	8.42	2.566
Apr. 29	0030	*1580	44.7	9.52	2.907						

Minimum discharge, 6.2 ft^3/s (0.18 m^3/s) July 19, gage height 5.66 ft (1.725 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	18	72	35	37	59	51	103	22	13	17	8.0
2	9.4	17	191	30	70	51	40	70	19	9.9	14	11
3	9.4	16	145	26	78	42	31	54	25	9.8	16	16
4	9.6	23	70	24	68	37	33	42	89	11	17	22
5	10	23	50	24	52	41	156	37	42	23	13	65
6	10	21	43	24	40	38	70	83	25	150	190	
7	10	19	71	23	37	33	48	56	20	11	50	110
8	9.8	25	105	23	33	31	38	40	22	9.8	267	58
9	9.4	21	151	22	31	31	31	34	511	9.1	235	58
10	8.7	24	85	22	28	35	29	31	123	8.4	67	29
11	8.2	23	56	22	120	37	25	38	48	7.8	155	22
12	10	22	42	22	125	37	68	42	30	7.6	107	19
13	21	21	51	21	115	55	50	34	25	7.4	46	16
14	22	22	38	21	110	41	204	30	73	7.6	30	20
15	19	26	33	21	92	35	127	63	128	7.5	146	30
16	16	23	28	21	82	47	61	70	55	7.0	173	22
17	14	21	26	21	200	32	89	46	45	6.9	64	19
18	18	21	25	20	572	30	81	32	29	6.7	36	17
19	23	20	24	20	1000	29	51	27	23	6.6	26	16
20	12	20	23	21	614	28	42	25	20	7.7	19	18
21	11	21	27	22	286	29	35	22	18	11	14	17
22	11	22	29	22	162	29	30	19	29	9.7	13	19
23	10	22	31	23	357	52	114	17	28	8.2	12	20
24	10	49	28	23	248	72	170	16	19	7.3	11	19
25	83	76	26	23	110	59	110	16	17	6.9	11	17
26	162	41	26	28	75	52	64	22	14	15	10	16
27	52	32	28	70	61	117	49	22	12	14	9.7	15
28	30	34	26	78	66	62	557	94	11	287	9.4	14
29	24	38	30	58	---	44	905	44	11	264	9.0	14
30	21	36	37	42	---	66	229	28	14	51	8.6	13
31	20	---	40	33	---	74	---	27	---	23	8.4	---
TOTAL	692.9	797	1657	885	4869	1425	3588	1284	1547	889.9	1623.1	930.0
MEAN	22.4	26.6	53.5	28.5	174	46.0	120	41.4	51.6	28.7	52.4	31.0
MAX	162	76	191	78	1000	117	905	103	511	287	267	190
MIN	8.2	16	23	20	28	28	25	16	11	6.6	8.4	8.0
CFSM	.72	.86	1.72	.92	5.60	1.48	3.86	1.33	1.66	.92	1.69	1.00
IN.	.83	.95	1.98	1.06	5.82	1.70	4.29	1.54	1.85	1.06	1.94	1.11

CAL YR 1980 TOTAL 20710.2 MEAN 56.6 MAX 1050 MIN 6.2 CFSM 1.82 IN 24.77
WTR YR 1981 TOTAL 20187.9 MEAN 55.3 MAX 1000 MIN 6.6 CFSM 1.78 IN 24.15

03022540 WOODCOCK CREEK AT BLOOMING VALLEY, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
MAR									
25...	1700	55	130	7.4	5.0	44	16	83	.11
AUG									
11...	1715	288	95	7.3	19.0	30	15	85	.12

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAR									
25...	12.3	330	240	90	20	0	20	7	1.0
AUG									
11...	66.1	2500	2300	190	140	120	20	126	98

03022554 WOODCOCK CREEK AT WOODCOCK CREEK DAM, PA

LOCATION.--Lat 41°41'45", long 80°06'30", Crawford County, Hydrologic Unit 05010004, on left bank 0.5 mi (0.8 km) downstream from Woodcock Creek Dam, 2.6 mi (4.2 km) southeast of Saegertown, and 3.0 mi (4.8 km) upstream from mouth.

DRAINAGE AREA.--45.6 mi^2 (118.1 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,126.92 ft (343.485 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Nov. 4, 1976, water-stage recorder at site 0.5 mi (0.8 km) downstream at datum 10.08 ft (3.072 m) lower.

REMARKS.--Records good. Flow regulated by Woodcock Creek Lake 0.5 mi (0.8 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 87.7 ft^3/s (2.484 m^3/s), 26.12 in/yr (663 mm/yr) adjusted for storage.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 888 ft^3/s (25.1 m^3/s) Feb. 24, 1976, gage height, 6.17 ft (1.881 m); minimum daily, 4.2 ft^3/s (0.12 m^3/s) Apr. 21, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 718 ft^3/s (20.3 m^3/s) Feb. 25, gage height, 4.77 ft (1.454 m); minimum daily, 6.0 ft^3/s (0.17 m^3/s) Aug. 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	74	92	22	96	632	63	498	82	9.3	158	13
2	21	49	111	22	96	608	63	492	37	9.3	156	39
3	55	49	135	22	198	510	63	486	24	9.3	152	105
4	55	49	133	22	300	348	63	471	63	9.3	152	160
5	52	49	133	22	196	268	64	387	107	9.3	107	160
6	52	49	132	22	68	202	65	306	63	12	56	154
7	52	49	132	22	52	125	65	212	14	14	61	158
8	52	49	132	22	52	123	65	110	15	14	89	154
9	52	48	133	22	52	99	65	109	24	14	135	154
10	52	48	209	22	52	91	65	109	17	14	158	109
11	52	48	303	22	52	91	65	86	67	12	160	57
12	52	48	293	22	52	89	65	60	162	9.9	115	37
13	52	47	285	22	93	98	65	60	375	9.9	140	14
14	52	47	275	22	110	98	58	58	541	9.9	156	15
15	52	47	185	22	110	100	82	60	450	9.9	160	15
16	52	47	79	22	110	101	107	47	218	9.3	198	15
17	52	47	78	22	110	82	109	32	86	8.1	230	22
18	52	47	62	22	115	61	109	32	39	8.1	230	30
19	52	47	40	22	120	61	109	32	16	8.7	152	30
20	52	45	40	22	125	61	109	32	15	8.7	57	31
21	52	45	40	32	130	61	107	32	15	8.7	63	31
22	51	45	31	40	289	61	107	32	14	8.1	61	31
23	51	45	22	40	408	48	112	32	14	7.5	42	31
24	50	47	22	40	486	38	131	32	14	7.5	16	31
25	55	47	22	40	658	38	150	32	14	7.5	6.0	31
26	54	68	22	40	690	37	150	32	14	8.1	6.0	31
27	87	92	22	40	670	37	150	32	14	7.5	6.0	31
28	143	90	22	52	650	47	170	32	14	8.1	9.3	31
29	121	90	22	72	---	47	166	70	14	99	12	31
30	99	90	22	96	---	48	354	109	12	162	13	29
31	99	---	22	96	---	49	---	107	---	162	13	---
TOTAL	1842	1642	3251	1028	6140	4359	3116	4221	2554	695.0	3069.3	1780
MEAN	59.4	54.7	105	33.2	219	141	104	136	85.1	22.4	99.0	59.3
MAX	143	92	303	96	690	632	354	498	541	162	230	160
MIN	17	45	22	22	52	37	58	32	12	7.5	6.0	13
†	-28.8	-12.3	-10.6	+5.9	+78.1	-48.1	+98.5	-67.5	+1.2	+17.7	-18.7	-3.7
MEAN‡	30.6	42.4	94.4	39.1	297	92.9	202	68.5	86.3	40.1	80.3	55.6
CFSM‡	.67	.93	2.07	.86	6.51	2.04	4.43	1.50	1.89	.88	1.76	1.22
IN.‡	.77	1.04	2.39	.99	6.78	2.35	4.94	1.73	2.11	1.01	2.03	1.36

CAL YR 1980 TOTAL 34769.0 MEAN 95.0 MAX 760 MIN 14 ADJ -1.0 MEAN‡ 94.0 CFSM‡ 2.06 IN.‡ 28.00
WTR YR 1981 TOTAL 33697.3 MEAN 92.3 MAX 690 MIN 6.0 ADJ +0.1 MEAN‡ 92.4 CFSM‡ 2.03 IN.‡ 27.50

† Change in contents, equivalent in cubic feet per second, in Woodcock Creek Lake.
‡ Adjusted for change in reservoir contents.

BEST DOCUMENT AVAILABLE

03024000 FRENCH CREEK AT UTICA, PA

LOCATION.--Lat 41°21'15", long 79°57'22", Venango County, Hydrologic Unit 05010004, on right bank at upstream side of bridge on Legislative Route 60019 at Utica, 2,000 ft (610 m) upstream from Mill Creek.

DRAINAGE AREA.--1,028 mi² (2,663 km²).

PERIOD OF RECORD.--August 1932 to current year.

REVISED RECORDS.--WSP 743: Drainage area. WSP 823: 1936 (M). WSP 1275: 1933, 1936.

GAGE.--Water-stage recorder. Datum of gage is 1,019.44 ft (310.725 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 27, 1933, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated since 1971 by Union City Reservoir 50 mi (80 km) upstream, serving as a retarding basin, and since January 1974 by Woodcock Creek Lake, 25 mi (40 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 1,805 ft³/s (51.12 m³/s), 23.84 in/yr (606 mm/yr), adjusted for storage since 1971.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft³/s (674 m³/s) Mar. 7, 1964, gage height, 13.2 ft (4.02 m), from floodmark in gage well; minimum, 43 ft³/s (1.22 m³/s) July 30, 1934, gage height, 1.03 ft (0.314 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1912, 15.7 ft (4.79 m) in March 1913, discharge 35,600 ft³/s (1.010 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,400 ft³/s (521 m³/s) Feb. 21, gage height, 11.64 ft (3.548 m); minimum daily, 289 ft³/s (8.18 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	332	2100	2100	1680	1830	5290	2840	9990	1100	637	1640	396
2	312	1870	3080	1520	2540	4700	2490	6030	1010	574	1180	1140
3	316	1710	4200	1310	2900	4130	2190	4470	926	526	897	1680
4	328	1590	3840	1050	3010	3540	1910	3600	1440	539	796	2410
5	320	1490	3250	990	2840	3160	2680	3160	2480	976	724	2540
6	316	1390	2830	1120	2420	3030	3120	3220	1910	1160	608	2560
7	324	1320	2620	1110	2020	2760	2780	3250	1290	783	537	2500
8	340	1270	2930	1070	1750	2590	2330	2670	1050	648	1380	2320
9	340	1570	4080	1070	1540	2480	1980	2220	10900	555	2110	2060
10	328	1890	4180	988	1460	2430	1740	1890	5650	508	1960	1880
11	316	2100	3750	968	1950	2450	1560	1700	4370	470	1810	1540
12	340	1970	3310	950	3230	2360	1600	1650	3680	437	1770	1230
13	475	1750	2950	978	3640	2360	1650	1630	2950	404	1570	998
14	1340	1500	2860	950	3550	2230	3100	1540	3120	386	1290	1220
15	1370	1490	2610	916	3280	2050	5000	1670	3690	356	2400	1470
16	1140	1510	2230	900	3120	2120	4390	1830	3280	337	2900	1310
17	910	1340	1970	898	5410	2090	3820	1990	2470	321	3190	1460
18	793	1210	1740	897	7550	1920	3530	1870	1890	303	2400	1320
19	688	1110	1500	917	11100	1750	3140	1630	1670	289	1780	1100
20	674	1070	1170	899	17700	1620	2730	1380	1400	308	1210	1020
21	758	1050	1100	888	18100	1500	2440	1170	1160	493	920	910
22	1180	1080	1080	940	15700	1440	2190	1030	1210	436	780	856
23	1410	1150	1170	953	13500	1620	2350	931	1170	372	688	822
24	1340	1310	1260	972	12600	2030	4150	853	1390	334	596	1040
25	1360	2070	1050	1010	11300	2480	4690	784	1500	306	525	1130
26	3230	2620	971	1040	9810	2620	3990	778	1300	365	481	1030
27	4100	2480	1070	1720	7710	3610	3260	769	1030	427	455	816
28	3510	2280	1110	2160	6000	3800	3760	1090	865	558	439	654
29	3290	2160	1080	2240	---	3250	11000	1390	749	2330	428	698
30	2800	2030	1320	2200	---	2920	12500	1500	697	2790	414	720
31	2370	---	1600	1900	---	3000	---	1340	---	2140	413	---
TOTAL	36650	49480	70011	37204	177560	83330	104910	69025	67347	21070	38291	40830
MEAN	1182	1649	2258	1200	6341	2688	3497	2227	2245	680	1235	1361
MAX	4100	2620	4200	2240	18100	5290	12500	9990	10900	2790	3190	2560
MIN	312	1050	971	888	1460	1440	1560	769	697	289	413	396
†	+41.3	-79.7	-12.7	+5.5	+398	-305	+198	-196	+0.6	+20.4	-21.6	+0.2
MEAN‡	1223	1569	2245	1206	6739	2383	3695	2031	2246	700	1213	1361
CFSM‡	1.19	1.53	2.18	1.17	6.56	2.32	3.59	1.98	2.18	.68	1.18	1.32
IN.‡	1.37	1.71	2.51	1.35	6.83	2.67	4.01	2.28	2.43	.78	1.36	1.47

CAL YR 1980 TOTAL 754504 MEAN 2061 MAX 10200 MIN 312 ADJ -9.0 MEAN‡ 2052 CFSM‡ 2.00 IN.‡ 27.17
WTR YR 1981 TOTAL 795708 MEAN 2180 MAX 18100 MIN 289 ADJ +0.4 MEAN‡ 2180 CFSM‡ 2.12 IN.‡ 28.77

† Change in contents, equivalent in cubic feet per second, in Union City Reservoir and Woodcock Creek Lake.
‡ Adjusted for change in reservoir contents.

03025500 ALLEGHENY RIVER AT FRANKLIN, PA

LOCATION.--Lat 41°23'22", long 79°49'14", Venango County, Hydrologic Unit 05010003, on right bank at downstream side of Eighth Street Bridge on U.S. Highway 322 at Franklin, 1,000 ft (305 m) downstream from French Creek, and at mile 124.4 (200.2 km).

DRAINAGE AREA.--5,982vmi^2 (15,493 km^2).

PERIOD OF RECORD.--October 1914 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at same site since April 1905 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 743: Drainage area. WSP 783: 1913 (M). WSP 1003: 1920 (M). WSP 1305: 1926 (M) 1928-29 (M). WSP 1385: 1920, 1932.

GAGE.--Water-stage recorder. Datum of gage is 955.84 ft (291.340 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 16, 1932, nonrecording gage, and Sept. 16-30, 1932, water-stage recorder, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. Flow regulated by Allegheny Reservoir 74 mi (119 km) upstream since 1965, by Chautauqua Lake since 1949, by Tionesta Lake since 1940, by Union City Reservoir since 1971, and by Woodcock Creek Lake since January 1974. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--67 years, 10,460 ft^3/s (296.2 m^3/s), 23.74 in/yr (603 mm/yr), adjusted for storage 1940-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 138,000 ft^3/s (3,910 m^3/s) Mar. 13, 1920, gage height, 20.65 ft (6.294 m), present datum; maximum gage height observed, 26.0 ft (7.92 m) present datum, Feb. 27, 1917 (backwater from ice) and Feb. 26, 1926 (backwater from ice); minimum discharge, 334 ft^3/s (9.46 m^3/s) July 30, 1934, gage height, 1.63 ft (0.497 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 17, 1865, reached a stage of 25.0 ft (7.62 m) present datum, and that of Mar. 26, 1913, a stage of 24.6 ft (7.50 m), present datum, from graph based on gage readings, discharge, 196,000 ft^3/s (5,550 m^3/s) and 191,000 ft^3/s (5,410 m^3/s), respectively, from rating curve extended above 120,000 ft^3/s (3,400 m^3/s). Maximum discharge since at least 1864 is that of Mar. 17, 1865.

EXTREMES FOR CURRENT YEAR.--Maximum discharges, 73,200 ft^3/s (2,070 m^3/s) Feb. 20, gage height, 14.62 ft (4.456 m), minimum daily, 1,380 ft^3/s (39.1 m^3/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1420	14600	9000	8610	10000	41900	12800	40200	6220	3720	7160	3200
2	1380	13400	12100	8190	11500	38800	11600	36500	6730	3300	5570	4830
3	2250	12000	18900	6970	11400	36200	10400	32400	5200	2720	4710	6640
4	3480	10500	16000	6060	8510	33300	9390	29600	7920	2640	4520	8840
5	3810	10000	14400	5800	7090	30600	12100	27500	12200	4280	3970	11800
6	3630	9620	12900	6840	7220	28300	13000	23700	11400	5390	3180	10900
7	3760	9190	11800	7370	6740	24200	11200	19600	9920	3560	2730	10700
8	3780	9160	13000	7010	7300	21000	9700	14400	8870	3100	6630	9490
9	3780	10600	19900	8060	6160	18600	8470	10800	43700	2930	5870	9460
10	3710	11700	21500	9500	6200	15300	7780	8480	23600	2790	5390	8540
11	3610	12100	20800	9830	7230	13600	7170	8360	16800	2640	5350	7480
12	3630	11600	19500	9010	10800	11600	7300	8350	14700	2430	5730	6120
13	3780	10900	18700	9700	11700	11500	7950	10700	12600	2330	5640	5510
14	5060	10100	17700	10300	11800	11300	12500	13100	13900	2210	5250	5070
15	5490	9820	15800	9520	11700	10700	19300	15300	24700	2100	5990	5780
16	5200	9620	14000	9320	11200	10800	17100	16400	20000	2050	8300	5810
17	4800	9040	13200	9470	17900	11100	15800	16900	19200	2050	8410	6180
18	4550	8820	12500	9640	30900	10100	15600	16100	16200	2270	6150	5460
19	4240	8460	12200	10100	45800	8500	14000	15200	13600	2260	4710	4840
20	4180	8250	10100	9640	70300	7570	13000	14300	11700	2460	3380	4590
21	4180	8280	8820	9550	61900	7220	12800	13100	10100	2960	2770	4190
22	5490	8210	8500	9610	49200	6980	12400	10900	10200	3000	2500	4200
23	6490	8360	8430	9300	47500	7200	15100	8250	9980	2710	2820	4320
24	6290	8750	8140	9060	47700	7880	21200	6550	8560	2650	2740	5200
25	7760	11000	7380	8780	43700	8300	23800	5910	7610	2580	2650	5390
26	19000	12100	7210	8880	42700	8700	22600	5540	6900	2680	2560	4990
27	17800	11200	8500	10400	41600	11900	20300	5250	6270	3050	2510	4450
28	17400	10500	7350	11400	43100	12900	21600	6800	5570	3420	2560	4080
29	16700	9980	7450	11400	---	12100	57600	7780	5160	11000	2830	3980
30	16100	9580	8040	10600	---	11400	48100	7640	4530	9680	3090	4070
31	15500	---	8820	10300	---	13200	---	7050	---	8130	3100	---
TOTAL	208250	307440	392640	280220	688850	502750	491660	462660	374040	109090	138770	186110
MEAN	6718	10250	12670	9039	24600	16220	16390	14920	12470	3519	4476	6204
MAX	19000	14600	21500	11400	70300	41900	57600	40200	43700	11000	8410	11800
MIN	1380	8210	7210	5800	6160	6980	7170	5250	4530	2050	2500	3200

CAL YR 1980 TOTAL 3627810 MEAN 9912 MAX 36400 MIN 1380
WTR YR 1981 TOTAL 4142480 MEAN 11350 MAX 70300 MIN 1380

BEST DOCUMENT AVAILABLE

03026500 SEVENMILE RUN NEAR RASSELAS, PA

LOCATION.--Lat 41°37'52", long 78°34'37", McKean County, Hydrologic Unit 05010005, on right bank 300 ft (91 m) upstream from highway bridge, 600 ft (183 m) upstream from Fivemile Run, and 3.2 mi (5.1 km) northeast of Rasselas.

DRAINAGE AREA.--7.84 mi² (20.31 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,690.73 ft (515.335 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--30 years, 14.3 ft³/s (0.405 m³/s), 24.77 in/yr (629 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft³/s (45.9 m³/s) Sept. 28, 1967, from rating curve extended above 200 ft³/s (5.66 m³/s) on basis of slope-area measurement at gage height 4.60 ft (1.402 m); maximum gage height, 4.98 ft (1.518 m) Aug. 8, 1979; minimum discharge, 0.07 ft³/s (0.002 m³/s) Sept. 21, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 20	1630	254	7.19	3.97	1.210	May 12	0045	200	5.66	3.70	1.128
Apr. 29	0100	*280	7.93	*4.08	1.244						

Minimum discharge, 0.76 ft³/s (0.022 m³/s) Oct.9,10,11, gage height, 1.70 ft (0.518 m).

DISCHARGE, IN CUBIC FEET PER SFCOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.89	9.6	11	3.8	3.0	28	19	70	3.8	25	5.6	2.0
2	1.0	8.4	21	3.2	7.0	23	18	47	7.3	11	4.6	4.6
3	1.3	7.3	31	2.7	11	20	15	34	7.6	9.3	4.0	4.0
4	1.6	7.6	22	3.4	9.4	17	14	26	7.3	7.9	4.0	13
5	1.2	7.6	19	2.9	8.0	15	15	21	5.1	13	3.8	11
6	1.0	6.5	16	2.7	6.6	13	13	19	5.9	12	3.1	11
7	1.2	6.2	17	2.6	6.0	12	11	16	4.4	8.9	2.9	7.9
8	.89	7.6	32	2.5	5.2	10	10	13	3.8	7.6	15	13
9	.89	10	38	2.4	4.6	9.3	10	12	11	6.7	6.7	13
10	.76	14	38	2.3	4.1	8.6	9.3	11	6.7	5.9	5.6	8.5
11	1.3	11	26	2.2	7.0	8.1	9.9	107	5.1	4.9	5.1	7.3
12	1.3	10	22	2.1	16	7.7	11	125	4.4	4.4	4.9	6.4
13	1.8	9.2	19	2.1	33	10	19	70	4.2	4.2	4.0	5.6
14	1.6	8.8	16	2.1	20	8.9	34	46	4.9	3.8	3.6	5.9
15	1.4	8.4	14	2.3	10	8.0	32	38	43	3.4	3.8	6.2
16	1.3	7.3	12	2.0	16	9.9	26	29	22	3.2	4.9	4.9
17	1.2	6.9	10	1.9	30	8.4	34	22	24	3.1	3.4	5.4
18	2.6	6.5	8.6	1.9	22	8.4	35	18	15	2.8	2.9	4.4
19	2.4	5.9	7.2	1.8	40	7.5	28	15	11	2.8	2.8	4.0
20	1.6	5.6	12	1.8	80	6.9	24	13	8.9	4.4	2.6	4.9
21	1.7	5.6	20	1.7	163	6.4	20	11	8.5	12	2.5	4.0
22	1.7	5.0	13	1.7	115	6.1	17	9.7	8.5	8.2	2.5	4.2
23	1.4	5.0	9.0	1.6	110	6.7	31	8.2	7.0	3.2	2.3	4.2
24	1.3	9.6	6.4	1.6	86	7.2	35	7.3	5.9	2.6	2.2	3.6
25	44	19	9.0	1.5	58	6.7	31	6.7	5.6	2.5	2.0	3.4
26	55	15	5.0	1.9	41	6.5	23	6.2	4.9	2.5	2.0	3.2
27	23	13	4.5	2.5	32	13	22	5.6	4.4	2.5	1.9	3.4
28	20	13	4.3	2.1	33	11	71	5.4	4.0	12	2.2	3.6
29	17	12	4.1	1.8	---	11	222	4.9	3.6	29	2.2	3.2
30	13	10	9.0	2.2	---	18	113	4.6	14	11	2.0	3.1
31	11	---	6.0	4.2	---	22	---	4.2	---	6.7	2.3	---
TOTAL	216.33	271.6	482.1	71.5	976.9	354.3	974.2	825.8	271.8	236.5	117.4	178.9
MEAN	6.98	9.05	15.6	2.31	34.9	11.4	32.5	26.6	9.06	7.63	3.79	5.96
MAX	55	19	38	4.2	163	28	222	125	43	29	15	13
MIN	.76	5.0	4.1	1.5	3.0	6.1	9.3	4.2	3.6	2.5	1.9	2.0
CFSM	.89	1.15	1.99	.30	4.45	1.45	4.15	3.39	1.16	.97	.48	.76
IN.	1.03	1.29	2.29	.34	4.63	1.68	4.62	3.92	1.29	1.12	.56	.85

	TOTAL	MEAN	MAX	MIN	CFSM	IN
CAL YR 1980	4930.13	13.5	116	.76	1.72	23.39
WTR YR 1981	4977.33	13.6	222	.76	1.74	23.61

03026500 SEVENMILE RUN NEAR RASSELAS, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
MAR									
23...	1630	7.2	<50	6.6	5.0	5	8.0	17	.02
AUG									
11...	1030	5.0	<50	6.9	14.5	4	6.8	28	.04

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR									
23...	.33	100	70	30	30	0	40	1	.02
AUG									
11...	.38	150	130	20	30	0	30	1	.01

03027500 EAST BRANCH CLARION RIVER AT EAST BRANCH CLARION RIVER DAM, PA

LOCATION.--Lat 41°33'11", long 78°35'47", Elk County, Hydrologic Unit 05010005, on left bank 700 ft (213 m) upstream from Middle Fork, 0.5 mi (0.8 km) downstream from East Branch Clarion River Dam, and 1.2 mi (1.9 km) northeast of Glen Hazel.

DRAINAGE AREA.--73.2 mi² (189.6 km²).

PERIOD OF RECORD.--October 1948 to current year.

REVISED RECORDS.--WSP 1235: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,517.58 ft (462.558 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good. Flow completely regulated since June 1952 by East Branch Clarion River Lake 0.5 mi (0.8 km) upstream. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

COOPERATION.--Two discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--33 years, 136 ft³/s (3.852 m³/s), 25.23 in/yr (641 mm/yr), adjusted for storage since 1952.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,590 ft³/s (73.3 m³/s) May 10, 1957, gage height, 7.25 ft (2.20 m); minimum, 0.20 ft³/s (0.006 m³/s) July 25, 1969, gage height, 1.06 ft (0.323 m); minimum daily, 0.40 ft³/s (0.011 m³/s) July 24-27, 1969.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 28, 1946, reached a stage of 8.3 ft (2.53 m) from graph based on gage readings at site 1,000 ft (305 m) downstream and at different datum, discharge, 4,000 ft³/s (113 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 616 ft³/s (17.4 m³/s) Apr. 30, gage height, 3.98 ft (1.213 m); minimum daily, 20 ft³/s (0.566 m³/s) Mar. 17-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	63	113	119	60	21	25	586	215	135	240	153
2	123	61	113	119	62	21	26	572	47	133	496	153
3	123	61	113	119	61	21	26	562	28	132	274	153
4	123	61	143	119	61	21	25	555	28	132	101	156
5	123	61	173	119	61	21	25	550	27	133	101	153
6	123	60	173	84	61	24	24	548	27	132	101	153
7	115	60	171	61	61	23	23	543	27	132	101	153
8	105	60	173	61	61	22	23	541	42	132	120	154
9	105	60	173	61	61	22	23	538	61	132	104	153
10	105	61	213	61	61	22	22	537	62	132	103	153
11	105	61	253	61	61	21	23	385	63	143	103	153
12	105	61	252	61	61	21	23	310	62	157	102	153
13	105	61	249	60	61	22	23	481	62	157	101	151
14	105	61	249	61	61	21	24	564	64	157	101	151
15	105	61	246	61	61	21	25	558	64	157	101	151
16	105	61	246	61	61	21	26	549	64	156	101	151
17	105	61	244	60	61	20	123	543	63	155	101	151
18	105	61	241	60	61	20	179	406	62	144	101	151
19	90	61	241	60	61	20	178	219	95	133	100	151
20	75	61	241	60	40	20	177	164	132	135	100	150
21	74	61	241	60	21	20	126	147	133	118	100	149
22	72	61	238	60	21	20	70	157	133	87	100	150
23	72	61	181	60	21	20	68	156	132	87	100	106
24	71	61	121	60	21	20	69	112	132	87	100	110
25	71	63	121	60	21	20	70	68	132	94	110	262
26	71	87	121	60	21	20	69	68	131	101	121	468
27	72	113	121	61	21	21	69	68	131	101	120	338
28	74	113	119	60	21	21	71	68	131	106	128	190
29	74	113	119	60	---	22	71	68	131	84	137	146
30	75	113	119	60	---	22	388	286	135	66	137	146
31	74	---	119	60	---	24	---	516	---	66	144	---
TOTAL	2973	2064	5640	2189	1367	655	2114	11425	2616	3816	4049	5112
MEAN	95.9	68.8	182	70.6	48.8	21.1	70.5	369	87.2	123	131	170
MAX	123	113	253	119	62	24	388	586	215	157	496	468
MIN	71	60	113	60	21	20	22	68	27	66	100	106
†	-42.8	+12.4	-43.9	-34.6	+333	+96.0	+209	-108	-14.1	-74.0	-98.9	-140
MEAN‡	53.1	81.2	138	36.0	382	117	280	261	73.1	49.0	32.1	30.0
CFSM‡	.73	1.11	1.89	.49	5.22	1.60	3.83	3.57	1.00	.67	.44	.41
IN.‡	.84	1.24	2.18	.56	5.44	1.84	4.27	4.12	1.12	.77	.51	.46

CAL YR 1980 TOTAL 41428 MEAN 113 MAX 508 MIN 32 ADJ -0.2 MEAN‡ 113 CFSM‡ 1.54 IN.‡ 21.02
WTR YR 1981 TOTAL 44020 MEAN 121 MAX 586 MIN 20 ADJ +5.1 MEAN‡ 126 CFSM‡ 1.72 IN,‡ 23.35

† Change in contents, equivalent in cubic feet per second, in East Branch Clarion River Lake.
‡ Adjusted for change in reservoir contents.

03028000 WEST BRANCH CLARION RIVER AT WILCOX, PA

LOCATION.--Lat 41°34'31", long 78°41'33", Elk County, Hydrologic Unit 05010005, on right bank 20 ft (6 m) downstream from highway bridge at Wilcox, 100 ft (30 m) downstream from Wilson Run, and 0.1 mi (0.2 km) upstream from Penn Central Railroad bridge.

DRAINAGE AREA.--63.0 mi^2 (163.2 km^2).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,502.02 ft (457.816 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 18, 1953, nonrecording gage at site 20 ft (6 m) upstream at same datum. Nov. 18 to Dec. 8, 1953, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--28 years, 124 ft^3/s (3.512 m^3/s), 26.73 in/yr (679 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,490 ft^3/s (155 m^3/s) Sept. 28, 1967, gage height, 10.01 ft (3.051 m), from rating curve extended above 3,000 ft^3/s (85.0 m^3/s); minimum, 4.2 ft^3/s (0.12 m^3/s) Sept. 21, 1955, gage height, 1.27 ft (0.387 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*).

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 20	1800	1760	49.8	5.93	1.807	Apr. 29	0330	*2140	60.6	*6.52	1.987

Minimum discharge, 12 ft^3/s (0.34 m^3/s) Oct. 10,11, gage height, 1.40 ft (0.427 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	59	100	37	20	234	207	651	52	169	64	20
2	14	51	242	33	52	197	187	437	90	67	55	53
3	14	46	171	30	46	171	164	308	170	70	51	46
4	17	50	171	28	36	146	146	232	330	54	48	134
5	14	46	140	27	32	135	155	181	190	132	61	95
6	13	41	135	26	26	114	119	158	130	106	41	83
7	14	40	224	25	21	95	98	125	90	73	36	65
8	14	48	309	24	18	81	88	101	68	70	173	124
9	13	68	301	23	16	71	95	85	129	60	73	110
10	12	70	260	23	25	68	77	81	65	48	60	81
11	15	59	227	26	54	65	81	372	64	40	62	71
12	14	56	194	28	120	63	93	611	56	36	57	64
13	17	54	167	30	96	79	146	419	66	34	46	55
14	16	56	132	34	72	68	242	323	186	32	42	57
15	15	51	102	32	56	63	221	307	252	30	44	69
16	14	47	90	31	43	75	210	236	147	29	55	48
17	14	70	72	30	41	62	294	184	166	28	38	60
18	24	65	62	28	70	53	280	148	111	27	33	44
19	21	41	52	27	300	62	238	126	92	30	30	42
20	17	37	46	25	1680	60	217	108	77	50	27	47
21	17	38	76	23	1310	52	184	91	73	152	25	40
22	16	36	48	21	951	47	161	77	75	86	24	40
23	14	36	45	18	985	56	242	68	72	49	23	39
24	14	119	48	17	729	64	245	62	62	33	22	35
25	413	117	46	16	521	58	227	58	56	30	21	32
26	312	98	43	18	369	77	204	54	54	32	20	31
27	129	102	40	22	280	122	180	52	52	31	19	32
28	119	100	38	20	277	95	473	48	50	125	23	34
29	100	88	45	18	---	107	1690	44	49	244	23	30
30	75	77	49	15	---	227	1040	40	70	107	20	27
31	66	---	42	17	---	207	---	37	---	80	24	---
TOTAL	1580	1866	3717	772	8246	3074	8004	5824	3144	2154	1340	1708
MEAN	51.0	62.2	120	24.9	295	99.2	267	188	105	69.5	43.2	56.9
MAX	413	119	309	37	1680	234	1690	651	330	244	173	134
MIN	12	36	38	15	16	47	77	37	49	27	19	20
CFSM	.81	.99	1.91	.40	4.68	1.58	4.24	2.98	1.67	1.10	.69	.90
IN.	.93	1.10	2.19	.46	4.87	1.82	4.73	3.44	1.86	1.27	.79	1.01

CAL YR 1980 TOTAL 39125 MEAN 107 MAX 770 MIN 12 CFSM 1.70 IN 23.10
WTR YR 1981 TOTAL 41429 MEAN 114 MAX 1690 MIN 12 CFSM 1.81 IN 24.46

03028500 CLARION RIVER AT JOHNSONBURG, PA

LOCATION.--Lat 41°29'10", long 78°40'43", Elk County, Hydrologic Unit 05010005, on right bank at downstream side of highway bridge in Johnsonburg, 0.1 mi (0.2 km) downstream from Johnson Run, and 0.4 mi (0.6 km) downstream from confluence of East and West Branches.

DRAINAGE AREA.--204 mi^2 (528 km^2).

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1235: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,423.03 ft (433.740 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 8, 1951, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since June 1952 by East Branch Clarion River Lake 7.9 mi (12.7 km) upstream and at low flow by industrial plants above station. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

COOPERATION.--One discharge measurement furnished by Corps of Engineers.

AVERAGE DISCHARGE.--36 years, 381 ft^3/s (10.79 m^3/s), 25.36 in/yr (644 mm/yr), adjusted for storage since 1952.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s (331 m^3/s) May 28, 1946, gage height, 9.2 ft (2.80 m), from graph based on gage readings; maximum gage height, 9.94 ft (3.030 m) June 22, 1972; minimum discharge, 6 ft^3/s (0.17 m^3/s) Sept. 18, 1952, gage height, 0.68 ft (0.207 m), result of regulation above station; minimum daily, 20 ft^3/s (0.57 m^3/s) Oct. 5, 1948, Nov. 6, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1942 reached a stage of 16.7 ft (5.09 m) from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,140 ft^3/s (117 m^3/s) Apr. 29, gage height, 6.65 ft (2.027 m); minimum, 76 ft^3/s (2.15 m^3/s) Jan. 30, gage height, 1.46 ft (0.445 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	209	306	180	106	466	394	1750	404	619	278	187
2	132	183	455	170	160	391	374	1400	215	276	609	232
3	136	169	644	150	180	336	321	1210	153	259	412	250
4	141	171	517	140	130	291	290	1090	154	237	171	451
5	134	166	530	130	120	277	294	1010	110	300	178	350
6	132	153	492	120	105	250	254	961	108	312	162	334
7	132	148	486	115	100	218	220	894	93	248	162	290
8	117	180	664	110	96	197	201	837	95	221	680	394
9	113	224	791	105	92	181	204	804	691	206	269	392
10	111	246	812	100	90	173	187	789	300	193	221	315
11	119	209	742	94	200	168	197	1250	238	191	207	300
12	119	196	678	92	430	158	198	1650	200	200	200	295
13	121	190	630	99	390	189	280	1350	178	190	178	281
14	121	190	556	110	300	171	406	1280	283	182	168	276
15	117	183	486	115	230	149	399	1230	558	176	173	297
16	117	171	486	110	200	176	370	1110	315	173	191	232
17	115	161	430	110	190	146	593	1020	374	172	164	243
18	136	169	425	110	500	129	745	828	266	163	156	228
19	132	158	390	105	1200	145	639	534	254	150	152	223
20	105	153	306	105	3410	141	591	389	274	196	148	236
21	97	143	341	106	2350	139	486	337	275	286	144	233
22	97	143	330	103	1630	135	356	314	277	214	141	240
23	94	141	306	102	1610	139	498	292	244	139	138	208
24	92	224	231	101	1260	145	554	246	220	127	137	178
25	692	384	206	98	954	133	502	179	212	127	145	281
26	818	310	213	107	712	130	440	171	200	138	157	554
27	384	341	206	133	552	248	399	161	189	140	156	453
28	351	341	193	120	558	207	924	155	181	199	170	251
29	302	330	202	114	---	212	3440	147	175	506	188	191
30	258	306	227	96	---	355	2220	336	271	200	173	187
31	231	---	202	105	---	449	---	625	---	164	181	---
TOTAL	5898	6292	13483	3555	17855	6644	16976	24349	7507	6904	6609	8582
MEAN	190	210	435	115	638	214	566	785	250	223	213	286
MAX	818	384	812	180	3410	466	3440	1750	691	619	680	554
MIN	92	141	193	92	90	129	187	147	93	127	137	178
†	-42.8	+12.4	-43.9	-34.6	+333	+96.0	+209	-108	-14.1	-74.0	-98.9	-140
MEAN‡	147	222	391	80.4	971	310	775	677	236	149	114	146
CFSM‡	.72	1.09	1.92	.39	4.76	1.52	3.80	3.32	1.16	.73	.56	.72
IN.‡	.83	1.22	2.21	.45	4.96	1.75	4.24	3.83	1.29	.84	.65	.80

CAL YR 1980 TOTAL 121365 MEAN 332 MAX 1390 MIN 92 ADJ -0.2 MEAN‡ 332 CFSM‡ 1.63 IN,‡ 22.11
WTR YR 1981 TOTAL 124654 MEAN 342 MAX 3440 MIN 90 ADJ +5.1 MEAN‡ 347 CFSM‡ 1.70 IN.‡ 23.07

† Change in contents, equivalent in cubic feet per second, in East Branch Clarion River Lake.
‡ Adjusted for change in reservoir contents.

03029500 CLARION RIVER AT COOKSBURG, PA

LOCATION.--Lat 41°19'50", long 79°12'33", Jefferson County, Hydrologic Unit 05010005, on left bank at downstream side of bridge on Stage Highway 36 at Cooksburg, 300 ft (90 m) downstream from Toms Run, and 2.7 mi (4.3 km) upstream from Cathers Run.

DRAINAGE AREA.--807 mi² (2,090 km²).

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for October, November 1938, published in WSP 1305.

REVISED RECORDS.--WSP 1305: 1939 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,147.00 ft (349.606 m) National Geodetic Vertical Datum of 1929. Prior to May 17, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by East Branch Clarion River Lake since June 1952 and at low flow by industrial plants above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 1,448 ft³/s (41.01 m³/s), 24.37 in/yr (619 mm/yr), adjusted for storage since 1952.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,300 ft³/s (1,510 m³/s) June 23, 1972, gage height, 18.84 ft (5.742 m); minimum, 41 ft³/s (1.16 m³/s) Aug. 30, 1939, gage height, 1.22 ft (0.372 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1935, 19 ft (5.8 m) Mar. 17, 1936, from floodmarks, discharge, about 56,000 ft³/s (1,590 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft³/s (283 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 20	2200	*18700	530	*11.61	3.539	June 9	1800	12900	365	9.91	3.021
Apr. 29	1800	14800	419	10.52	3.206						

Minimum discharge, 238 ft³/s (6.74 m³/s), Oct. 24, 25, gage height, 1.96 ft (0.597 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	828	1220	560	280	2540	2230	6700	938	3980	664	406
2	274	740	1410	520	350	2130	2030	4760	888	2120	622	465
3	274	664	2570	480	560	1840	1880	3660	1070	1450	868	978
4	287	622	2390	460	700	1550	1700	3000	1050	1120	1180	1830
5	290	610	1970	430	640	1390	1570	2580	846	978	670	2440
6	283	592	1840	400	600	1310	1520	2300	652	1150	545	1820
7	274	550	1680	380	560	1190	1410	2190	628	946	478	1580
8	280	556	1880	350	540	1070	1280	1940	550	748	4390	1630
9	271	868	2400	340	520	978	1190	1750	8820	646	2870	2560
10	256	1370	2730	320	520	909	1140	1600	5740	580	1490	1760
11	259	1270	2540	310	800	874	1100	1680	3030	530	1070	1330
12	290	1040	2220	310	1200	853	1050	4960	2060	488	902	1120
13	301	884	2030	310	1700	853	1050	4680	1540	474	772	972
14	290	844	1860	330	1500	962	1120	3710	1620	456	652	868
15	287	820	1620	360	1300	909	1640	3600	4840	433	595	868
16	274	756	1500	350	1100	846	1710	3630	4110	406	628	828
17	265	684	1460	340	960	860	1570	2990	3560	402	628	756
18	283	670	1310	330	2200	797	1950	2590	2580	384	510	748
19	323	658	1190	320	5000	736	2100	2160	1900	367	451	640
20	359	616	733	320	14600	730	1900	1750	1530	393	415	622
21	283	580	600	310	13700	724	1750	1480	1300	916	388	640
22	259	562	700	330	8850	712	1600	1310	1230	930	367	574
23	253	562	800	300	7120	700	1430	1190	1230	628	347	580
24	244	604	740	290	7160	700	1660	1110	954	429	335	545
25	495	1700	640	280	5020	712	1960	994	832	367	327	480
26	4770	1880	620	280	3810	706	1840	881	797	347	319	495
27	2340	1510	600	340	3010	760	1660	818	706	367	323	788
28	1490	1460	560	440	2560	1170	1550	784	622	397	367	726
29	1390	1410	580	330	---	1140	9470	766	565	2700	478	525
30	1120	1320	640	260	---	1110	10400	712	555	1760	438	440
31	948	---	660	270	---	2040	---	736	---	909	406	---
TOTAL	19289	27230	43693	10950	86860	33801	64460	73011	56743	27801	24515	30014
MEAN	622	908	1409	353	3102	1090	2149	2355	1891	897	791	1000
MAX	4770	1880	2730	560	14600	2540	10400	6700	8820	3980	4390	2560
MIN	244	550	560	260	280	700	1050	712	550	347	319	406
†	-42.8	+12.4	-43.9	-34.6	+333	+96.0	+209	-108	-14.1	-74.0	-98.9	-140
MEAN‡	579	920	1365	318	3435	1186	2358	2247	1877	823	692	860
CFSM‡	.72	1.14	1.69	.39	4.26	1.47	2.92	2.78	2.33	1.02	.86	1.07
IN.‡	.83	1.27	1.95	.45	4.44	1.69	3.26	3.20	2.60	1.18	.99	1.19

CAL YR 1980 TOTAL 491815 MEAN 1344 MAX 9170 MIN 244 ADJ -0.2 MEAN‡ 1344 CFSM‡ 1.67 IN.‡ 22.64
WTR YR 1981 TOTAL 498367 MEAN 1365 MAX 14600 MIN 244 ADJ +5.1 MEAN‡ 1370 CFSM‡ 1.70 IN.‡ 23.06

† Change in contents, equivalent in cubic feet per second, in East Branch Clarion River Lake
‡ Adjusted for change in reservoir contents.

03030500 CLARION RIVER NEAR PINEY, PA

LOCATION.--Lat 41°11'33", long 79°26'25", Clarion County, Hydrologic Unit 05010005, on left bank 0.2 mi (0.3 km) downstream from hydroelectric plant of Pennsylvania Electric Co., 2.3 mi (3.7 km) northeast of Piney, 2.4 mi (3.9 km) upstream from Piney Creek, and 3 mi (5 km) southwest of Clarion.

DRAINAGE AREA.--951 mi^2 (2,463 km^2).

PERIOD OF RECORD.--October 1944 to current year (monthly discharge only October 1944 to September 1947).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,002.06 ft (305.428 m) National Geodetic Vertical Datum of 1929 (Pennsylvania Electric Co. bench mark). Prior to Dec. 23, 1947, records from hydroelectric plant 0.2 mi (0.3 km) upstream.

REMARKS.--Records good except those below 100 ft^3/s (2.83 m^3/s) which are poor. Flow regulated by East Branch Clarion River Lake since June 1952 and by hydroelectric plant at Piney Dam 0.2 mi (0.3 km) upstream since 1924, combined capacity of reservoirs, 113,200 acre-ft (140 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 1,762 ft^3/s (49.90 m^3/s), 25.16 in/yr (639 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,500 ft^3/s (2,110 m^3/s) June 23, 1972, gage height, 28.24 ft (8.608 m), from floodmark, from rating curve extended above 17,000 ft^3/s (480 m^3/s) on basis of slope-area measurement at gage height 20.70 ft (6.309 m) in gage well, 21.8 ft (6.64 m) from outside high-water profile; minimum not determined.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Mar. 18, 1936 reached a discharge of 50,000 ft^3/s (1,420 m^3/s) as determined by Pennsylvnia Electric Co., elevation, 1,028.5 ft (313.49 m), at lower pool of dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,600 ft^3/s (753 m^3/s) June 9, gage height, 15.95 ft (4.862 m); minimum daily, 33 ft^3/s (0.93 m^3/s) Dec. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	440	435	1630	34	382	2810	2480	7220	1490	4860	554	529
2	310	230	1610	2100	1210	2590	2270	5290	1250	1960	557	871
3	440	1010	4140	385	1780	2560	2370	4210	1230	2220	725	1330
4	88	1020	2750	94	1570	1990	1360	3530	2020	1290	2110	2980
5	64	1000	2040	567	1320	1110	1160	2740	1800	955	814	2450
6	488	960	1990	561	1920	1270	1980	2400	225	967	800	1880
7	336	580	1030	560	897	1370	1360	2250	95	1510	690	1970
8	445	56	2410	916	39	1120	893	2610	1070	1170	3970	2020
9	435	290	3230	158	906	1050	1220	1560	14100	1510	4060	3410
10	445	1920	3180	38	928	1200	1700	1030	7580	977	1760	1780
11	46	1170	2880	37	1200	990	883	2530	4470	896	1490	1600
12	49	1370	2790	51	1460	1650	452	5130	3560	83	931	1420
13	319	1810	2350	132	3630	1620	1900	4880	2300	92	1200	985
14	580	1400	1750	389	1940	1160	1500	4650	1360	92	1030	990
15	430	1020	1830	543	1100	583	2700	4650	4200	628	403	1060
16	499	56	1600	541	1460	1190	2240	3450	5840	798	402	1100
17	435	1000	1790	37	2920	1610	1880	3010	4780	660	769	1010
18	43	1030	1990	36	5210	1320	1900	3060	3160	632	801	825
19	43	1030	1950	933	15200	1010	2430	2720	3060	607	774	776
20	456	1020	377	844	24100	1020	1680	1940	1590	422	546	436
21	634	1010	33	363	16200	640	1920	1370	1410	1190	732	826
22	410	53	921	371	8710	37	1950	1950	2290	1190	138	785
23	510	54	330	476	8000	862	1860	1020	1620	1180	468	683
24	290	1220	913	35	8760	1010	2040	1030	1610	614	420	799
25	1860	2190	401	41	5930	1080	2260	849	1610	85	559	692
26	4740	2680	930	551	4630	1220	892	1050	2100	265	781	93
27	2620	1190	930	553	4350	1560	1870	1230	1010	1080	418	795
28	1490	2010	123	561	2960	1160	2780	1030	580	696	404	1340
29	1350	1430	953	949	---	800	13400	1600	430	2360	293	617
30	1480	1230	930	577	---	1690	11400	151	1410	2460	286	628
31	1240	---	1450	45	---	3090	---	95	---	1580	523	---
TOTAL	23015	31474	51831	13478	128712	42372	74730	80235	79250	35029	29408	36680
MEAN	742	1049	1672	435	4597	1367	2491	2588	2642	1130	949	1223
MAX	4740	2680	4140	2100	24100	3090	13400	7220	14100	4860	4060	3410
MIN	43	53	33	34	39	37	452	95	95	83	138	93
†	-68.6	+46.4	-67.4	-2.5	+300	+108	+238	-120	-88.2	-97.5	-76.1	-158
MEAN‡	673	1095	1605	432	4897	1475	2729	2468	2554	1032	873	1065
CFSM‡	.71	1.15	1.69	.45	5.15	1.55	2.87	2.60	2.69	1.09	.92	1.12
IN.‡	.82	1.28	1.95	.52	5.36	1.79	3.20	3.00	3.00	1.26	1.06	1.25

CAL YR 1980 TOTAL 586705 MEAN 1603 MAX 11200 MIN 33 ADJ -0.6 MEAN‡ 1602 CFSM‡ 1.68 IN.‡ 22.94
WTR YR 1981 TOTAL 626214 MEAN 1716 MAX 24100 MIN 33 ADJ -1.4 MEAN‡ 1715 CFSM‡ 1.80 IN.‡ 24.49

† Change in contents, equivalent in cubic feet per second, in East Branch Clarion River Lake and Piney Reservoir. Records of contents in Piney Reservoir furnished by Pennsylvania Electric Co.

‡ Adjusted for change in reservoir contents.

03031500 ALLEGHENY RIVER AT PARKER, PA

LOCATION.--Lat 41°06'02", long 79°40'53", Armstrong County, Hydrologic Unit 05010006, on right bank 500 ft (150 m) downstream from bridge on State Highway 368 at Parker, 1.1 mi (1.8 km) downstream from Clarion River, and at mile 83.4 (134.2 km).

DRAINAGE AREA.--7,671 mi^2 (19,868 km^2).

PERIOD OF RECORD.--October 1932 to current year. Prior to October 1963, published as "at Parkers Landing." Gage-height records collected at same site since 1885 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 845.14 ft (257.599 m) National Geodetic Vertical Datum, adjustment of 1907. Prior to Oct. 1, 1932, U.S. Weather Bureau gages at different datums. Oct. 1-28, 1932, nonrecording gage at datum 27.00 ft (8.230 m) lower.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1965 by Allegheny Reservoir, since 1949 by Chautauqua Lake, since 1941 by Tionesta Lake, since 1971 by Union City Reservoir, since 1974 by Woodcock Creek Lake, since 1952 by East Branch Clarion River Lake, and since 1924 by Piney Reservoir. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 13,400 ft^3/s (379.5 m^3/s), 23.72 in/yr (602 mm/yr), adjusted for storage from October 1940 to September 1975.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 175,000 ft^3/s (4,960 m^3/s) Jan. 22, 1959; maximum gage height, 29.60 ft (9.022 m) Jan. 21, 1959 (backwater from ice); minimum discharge, 409 ft^3/s (11.6 m^3/s) July 30, 1934, gage height, 0.67 ft (0.204 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 17, 1865, reached a stage of 29.4 ft (8.96 m), present datum, discharge, 250,000 ft^3/s (7,080 m^3/s), from rating curve extended above 137,000 ft^3/s (3,880 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 107,000 ft^3/s (3,030 m^3/s) June 9, gage height, 17.80 ft (5.425 m); maximum gage height, 25.49 ft (7.769 m) Feb. 18 (backwater from ice); minimum discharge, 2,820 ft^3/s (79.9 m^3/s) July 16, gage height, 1.77 ft (0.539 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3650	17100	12300	10500	13000	46700	18700	53100	8060	10500	9940	4210
2	3650	15400	13300	9400	14000	43700	16600	46100	8500	7820	7330	5190
3	3600	14300	24100	8600	12000	40900	14700	40700	8310	5840	6660	9870
4	3890	13100	22700	7600	9600	38100	13300	36500	8070	5170	6750	13000
5	4290	12100	19600	7000	8600	34600	14400	33000	14400	5540	6600	17300
6	4500	11600	16700	8000	8800	32000	17500	29800	13100	8220	5150	14800
7	4680	11100	15100	8800	8200	28300	15500	26000	11500	7390	4350	14600
8	4680	10100	15900	7800	8600	24900	13100	20800	10400	5570	7320	13700
9	4710	10800	22700	10000	7800	22600	11600	16000	55600	5430	12100	15000
10	4650	13800	27900	11500	8200	19300	10900	11300	44500	4700	8470	12800
11	4440	14300	27000	12000	9000	17100	9550	11400	27900	4370	7560	11000
12	4140	14200	25400	11000	12000	15100	9860	14100	22300	3660	8140	9120
13	4290	13100	23400	12000	14500	14600	11100	15700	18100	3160	6840	7500
14	5040	12500	22200	12500	15000	14300	13200	18200	17500	3150	7330	7460
15	6540	11500	20400	11500	14500	13000	23700	20700	28500	3310	6870	7750
16	6210	11200	17800	11500	14000	13100	23000	21100	30300	3390	8040	7400
17	5910	10500	16800	12000	20000	13800	21200	21300	27700	3540	10600	8160
18	5520	10700	16200	12000	32000	13300	20900	21000	23200	3470	8620	7600
19	5190	10300	15600	12000	54000	11500	19600	19400	19500	3400	6740	6420
20	5100	9960	13000	12000	91200	9850	17700	18500	15800	4020	5370	6020
21	5340	9880	10500	12000	86800	9070	16500	15300	13100	5990	4340	6190
22	5520	9430	9030	12000	65600	8710	15900	14300	14000	5850	3780	5810
23	7100	8870	9960	11500	59600	8680	17000	11300	13300	4830	3300	5740
24	7100	10100	10700	11000	62400	9890	23900	8710	12000	4140	3670	6120
25	9310	13500	8990	10500	53500	10200	28200	7400	11600	3670	3670	6780
26	25200	16000	9000	11000	50000	10700	26800	7300	11200	3360	3950	6200
27	24800	15300	10500	12000	47900	14100	25100	7080	9100	4420	3550	5640
28	21900	13000	9600	14000	46600	16700	23400	7610	7060	4600	3520	6070
29	20200	13000	9800	14500	---	15200	64100	9060	7060	9740	3600	5600
30	19400	12000	10500	13000	---	15000	71800	9240	6700	15200	3850	5420
31	18600	---	11000	12500	---	17200	---	8020	---	10800	4340	---
TOTAL	259150	368740	497680	341700	847400	602200	628810	600020	518360	174250	192350	258470
MEAN	8360	12290	16050	11020	30260	19430	20960	19360	17280	5621	6205	8616
MAX	25200	17100	27900	14500	91200	46700	71800	53100	55600	15200	12100	17300
MIN	3600	8870	8990	7000	7800	8680	9550	7080	6700	3150	3300	4210

CAL YR 1980 TOTAL 4889810 MEAN 13360 MAX 51000 MIN 2900
WTR YR 1981 TOTAL 5289130 MEAN 14490 MAX 91200 MIN 3150

03031950 BIG RUN NEAR SPRANKLE MILLS, PA

LOCATION.--Lat 40°59'30", long 79°05'26", Jefferson County, Hydrologic Unit 05010006, on right bank at downstream side of highway bridge, 0.5 mi (0.8 km) downstream from McCracken Run, and 1.3 mi (2.1 km) southeast of Sprankle Mills.

DRAINAGE AREA.--7.38 mi^2 (19.11 km^2).

PERIOD OF RECORD.--October 1963 to March 1981 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,290 ft (393 m), from topographic map.

REMARKS.--Records good except those for winter periods which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years, (1963-80), 13.4 ft^3/s (0.379 m^3/s), 24.66 in/yr (626 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 960 ft^3/s (27.2 m^3/s) July 19, 1977, gage height, 6.22 ft (1.896 m); maximum gage height, 6.23 ft (1.899 m) Feb. 13, 1966; minimum discharge, 0.14 ft^3/s (0.004 m^3/s) Aug. 25, 26, 27, 28, 30, 1978, minimum gage height, 1.83 ft (0.558 m) Sept. 27, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 150 ft^3/s (4.25 m^3/s) Feb. 20, Mar. 30, gage height, 3.47 ft (1.058 m) maximum gage height, 3.67 ft (1.119 m), Feb. 20 (backwater from ice), no peak above base of 250 ft^3/s (7.08 m^3/s); minimum discharge, 1.5 ft^3/s (0.042 m^3/s) Oct. 24, 25, gage height, 1.94 ft (0.591m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	5.0	13	5.4	2.4	16						
2	2.4	4.6	21	5.0	18	14						
3	2.9	4.2	17	4.4	7.0	11						
4	2.7	4.6	12	4.0	4.1	10						
5	2.2	4.6	11	3.7	4.5	10						
6	2.2	4.2	9.3	3.5	3.4	10						
7	2.2	4.2	12	3.3	2.9	9.3						
8	1.9	8.8	12	3.2	2.5	8.3						
9	1.9	8.3	21	3.0	2.3	8.3						
10	1.9	7.5	19	2.8	2.3	9.3						
11	4.2	6.7	13	2.8	28	9.8						
12	2.2	5.8	12	5.0	22	12						
13	1.9	5.8	11	6.6	18	17						
14	2.2	6.3	9.3	5.0	9.0	12						
15	2.4	6.7	11	4.5	6.2	11						
16	2.7	6.3	8.8	4.0	4.9	11						
17	2.2	6.7	7.9	3.7	6.2	9.8						
18	2.7	7.1	6.4	3.6	9.0	11						
19	2.4	7.1	5.6	3.4	19	8.8						
20	2.2	7.5	8.2	3.2	143	7.9						
21	2.2	7.9	14	3.0	81	7.5						
22	2.2	6.7	7.2	2.9	47	8.8						
23	1.9	5.0	5.2	2.7	81	9.3						
24	3.5	37	4.7	2.5	59	8.3						
25	69	22	4.4	2.2	36	7.5						
26	22	13	4.1	3.4	22	7.1						
27	9.8	11	3.8	4.9	18	15						
28	9.3	11	3.7	3.7	19	10						
29	7.5	12	4.6	2.6	---	9.3						
30	5.8	11	7.5	6.2	---	52						
31	5.8	---	6.3	3.5	---	29						
TOTAL	186.6	258.6	306.0	117.7	677.7	380.3						
MEAN	6.02	8.62	9.87	3.80	24.2	12.3						
MAX	69	37	21	6.6	143	52						
MIN	1.9	4.2	3.7	2.2	2.3	7.1						
CFSM	.82	1.17	1.34	.52	3.28	1.67						
IN.	.94	1.30	1.54	.59	3.42	1.92						

CAL YR 1980 TOTAL 5286.5 MEAN 14.4 MAX 186 MIN 1.6 CFSM 1.95 IN 26.64

03032500 REDBANK CREEK AT ST. CHARLES, PA

LOCATION.--Lat 40°59'40", long 79°23'40", Armstrong County, Hydrologic Unit 05010006, on left bank 400 ft (120 m) downstream from highway bridge on Legislative Route 03117 at St. Charles, 0.3 mi (0.5 km) downstream from Leatherwood Creek, and 3 mi (5 km) west of New Bethlehem.

DRAINAGE AREA.--528 mi^2 (1,368 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximums, water years 1910-18. October 1918 to current year. Monthly discharge only for some periods, published in WSP 1305. Figures of daily discharge for November 1920 to June 1921, published in WSP 523, are unreliable and should not be used.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1385: 1919, 1936-39, WDR PA-72-1: 1923 (M), 1926 (M), 1928 (M), 1936, 1937 (M), 1938 (M), 1943, 1945 (P), 1952 (M), 1953 (M), 1955 (M), 1956 (P), 1958 (M), 1959 (M), 1964, 1966 (M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 973.14 ft (296.613 m) National Geodetic Vertical Datum, datum of 1912. Prior to July 10, 1940, nonrecording gage at site 500 ft (150 m) upstream at datum 3.10 ft (0.94 m) higher.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--63 years, 864 ft^3/s (24.47 m^3/s), 22.22 in/yr (564 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft^3/s (1,420 m^3/s) Mar. 18, 1936, gage height, 18.60 ft (5.669 m), from floodmarks, site and datum then in use; minimum observed, 19 ft^3/s (0.54 m^3/s) Oct. 1, 1918.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 7,000 ft^3/s (198 m^3/s) and maximum observed (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 19	---	---	---	ice jam		June 9	1615	*12300	348	*13.78	4.200
Apr. 30	1230	8420	238	11.84	3.609						

Minimum daily discharge, 82 ft^3/s (2.32 m^3/s) Aug. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	428	680	320	300	1400	1570	3850	293	4450	215	128
2	188	386	830	290	560	1250	1320	2590	296	2320	188	192
3	195	355	1290	330	1460	1110	1160	1920	535	900	180	602
4	210	344	1140	370	1180	908	1040	1480	1240	370	254	1070
5	203	337	928	420	980	836	938	1220	987	872	224	1760
6	193	320	842	390	800	824	830	1080	608	812	200	914
7	173	299	789	360	680	716	728	1000	436	632	188	535
8	153	348	848	370	580	590	620	824	371	500	172	525
9	151	410	958	380	540	572	584	698	4780	432	371	1250
10	147	500	1240	320	520	572	495	566	3710	362	266	722
11	167	548	1150	270	1010	608	440	1040	2560	314	182	436
12	177	471	970	290	1750	602	590	2960	1530	278	152	341
13	177	410	897	320	1450	758	1070	2470	1030	248	148	278
14	173	386	824	360	1100	920	1840	2000	1180	245	142	299
15	193	382	616	350	920	794	1920	1640	2340	230	145	668
16	179	355	621	330	860	734	1610	2050	2230	215	192	520
17	155	330	645	350	1400	704	1600	2300	2440	195	200	380
18	190	330	554	360	2000	608	1790	1700	1760	188	188	314
19	218	330	582	350	5200	555	1420	1300	1240	180	168	284
20	210	316	410	300	4200	515	1200	1000	848	275	145	245
21	190	306	506	260	3000	515	994	692	758	848	115	224
22	173	309	741	230	2800	470	866	626	2540	812	93	218
23	163	313	587	220	2700	470	890	525	2760	475	93	206
24	157	475	475	220	3000	495	1390	436	1810	338	93	178
25	854	1110	433	215	2500	470	1360	396	1670	266	91	170
26	2410	1040	370	210	2000	452	1150	374	3270	221	85	162
27	1250	824	310	300	1700	698	1000	359	2320	224	82	155
28	873	748	340	430	1600	962	1200	365	1570	260	82	145
29	717	735	310	380	---	812	6830	347	1200	480	85	142
30	570	686	350	330	---	920	6240	320	1090	428	91	140
31	480	---	380	290	---	1820	---	320	---	281	115	---
TOTAL	11479	14131	21616	9915	46790	23660	44685	38448	49402	18651	4945	13203
MEAN	370	471	697	320	1671	763	1490	1240	1647	602	160	440
MAX	2410	1110	1290	430	5200	1820	6830	3850	4780	4450	371	1760
MIN	147	299	310	210	300	452	440	320	293	180	82	128
CFSM	.70	.89	1.32	.61	3.17	1.45	2.82	2.35	3.12	1.14	.30	.83
IN.	.81	1.00	1.52	.70	3.30	1.67	3.15	2.71	3.48	1.31	.35	.93

03032500 REDBANK CREEK AT ST. CHARLES, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970, 1973-74, December 1975 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT										
27...	1150	1400	195	7.0	6.0	--	--	--	46	116
DEC										
18...	1000	500	280	7.2	.0	.2	10	4	67	--
MAR										
05...	--	--	--	--	--	--	--	--	--	--
09...	1545	582	315	6.8	4.0	--	--	8	96	178
APR										
24...	1230	1470	240	6.9	8.5	--	--	12	67	161
27...	1515	698	--	--	14.5	--	--	--	--	--
JUN										
16...	1145	1944	150	7.0	23.5	--	--	8	40	106
AUG										
24...	1100	91	420	7.2	20.5	--	--	3	140	273

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT										
27...	.16	438	3200	3100	130	840	290	550	67	253
DEC										
18...	--	--	140	130	10	280	0	370	--	--
MAR										
05...	--	--	--	--	--	--	--	--	8	--
09...	.24	280	1100	780	320	1100	100	1000	3	4.7
APR										
24...	.22	639	3400	3400	0	680	70	610	97	385
27...	--	--	--	--	--	--	--	--	4	7.5
JUN										
16...	.14	556	2200	2100	100	310	60	250	81	425
AUG										
24...	.37	67.4	380	--	<10	120	30	90	1	.25

DATE	DISCHARGE, IN CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
APR			
28...	1200	52	242
29...	6830	898	16600
30...	6240	323	5900
MAY			
01...	3850	133	1430
02...	2590	51	368
12...	2960	373	3170
13...	2470	173	1190
14...	2000	50	302
15...	1640	28	127
16...	2050	61	338
JUN			
09...	4780	732	8390
10...	3710	210	2060
11...	2560	70	493
12...	1530	39	164
16...	2230	243	1480
17...	2440	207	1370
18...	1760	92	445
19...	1240	42	142
22...	2540	705	6920
23...	2760	465	3740

03033222 BEAVER RUN NEAR TROUTVILLE, PA

LOCATION.--Lat 41°00'33", long 78°47'49", Jefferson County, Hydrologic Unit 05010006, on right bank 0.66 mi (1.1 km) upstream from East Branch Mahoning Creek, and 1.2 mi (1.9 km) southeast of Troutville.

DRAINAGE AREA.--2.21 mi^2 (5.72 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1979 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 1,430 ft (436 m) from topographic map.

REMARKS.--Records good except those for winter period, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105 ft^3/s (2.97 m^3/s) Mar. 8, 1980, gage height, 7.37 ft (2.246 m); no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft^3/s (1.42 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	0500	83	2.35	7.05	2.149	May 11	1900	65	1.84	6.78	2.067
Feb. 20	2200	67	1.90	6.81	2.076	May 15	0300	54	1.53	6.61	2.015
Apr. 29	0330	*85	2.41	*7.09	2.161	June 25	1800	74	2.10	6.93	2.112

Minimum discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.03	1.4	.36	.81	2.1	1.8	7.1	.18	.92	.03	.00
2	.00	.02	11	.31	14	2.1	1.6	3.9	.74	.82	.02	.01
3	.00	.00	17	.26	3.3	1.8	1.4	2.6	1.0	.64	.03	.03
4	.00	.00	11	.22	1.3	2.1	1.3	2.1	2.4	.38	.03	1.1
5	.00	.00	8.3	.18	.56	1.8	1.3	1.7	1.3	.36	.02	.10
6	.00	.00	5.9	.18	.42	1.6	1.0	1.7	1.0	.31	.02	.03
7	.00	.00	5.5	.22	.36	1.4	.64	1.4	.64	.22	.02	.01
8	.00	.36	6.2	.18	.42	1.2	.56	1.2	.42	.18	.03	.09
9	.00	.60	9.0	.15	.49	.92	.64	.92	10	.17	.02	.04
10	.00	.56	11	.12	3.5	.92	.49	.72	3.4	.12	.01	.01
11	.13	.22	8.1	.12	40	.92	.72	15	2.2	.08	.01	.01
12	.00	.14	7.3	.08	10	1.0	2.2	12	1.6	.07	.02	.01
13	.00	.11	6.7	.06	6.2	2.1	3.6	3.8	1.5	.06	.02	.01
14	.00	.11	4.1	.06	3.0	1.9	10	4.5	4.2	.06	.01	.00
15	.00	.11	2.5	.08	4.1	1.6	6.4	23	3.1	.05	.01	.05
16	.00	.10	2.3	.08	11	1.6	3.9	6.8	2.4	.05	.02	.02
17	.00	.22	1.8	.06	8.7	1.4	4.3	3.9	3.8	.04	.02	.64
18	.00	.28	1.4	.06	8.2	1.3	3.1	2.8	2.2	.04	.02	.08
19	.00	.12	.93	.06	6.7	1.0	2.2	2.2	1.8	.04	.01	.05
20	.00	.10	.46	.06	29	.92	1.9	1.9	1.4	2.8	.00	.04
21	.00	.10	.26	.06	28	.82	1.5	1.6	1.5	1.6	.00	.03
22	.00	.10	.26	.06	8.0	.82	1.4	1.3	8.0	.42	.00	.03
23	.00	.12	.56	.06	13	.92	1.7	1.2	2.6	.17	.00	.23
24	.00	3.5	.49	.05	9.5	.72	2.1	.82	2.1	.13	.00	.15
25	4.5	3.3	.31	.05	5.4	.64	1.6	.72	13	.10	.00	.23
26	2.0	1.6	.26	.38	3.1	.49	1.4	.56	4.8	.10	.00	.01
27	.31	1.3	.26	5.0	2.2	1.5	1.3	.49	2.6	.08	.00	.01
28	.18	1.3	.26	.26	2.7	1.2	5.8	.49	1.9	.08	.00	.00
29	.10	1.3	.36	.22	---	1.0	50	.42	1.6	.08	.00	.00
30	.05	1.2	.53	.15	---	2.1	16	.36	1.3	.05	.00	.00
31	.05	---	.42	.18	---	2.2	---	.31	---	.04	.00	---
TOTAL	7.32	16.90	125.86	9.37	223.96	42.09	131.85	107.51	84.68	10.26	.37	3.02
MEAN	.24	.56	4.06	.30	8.00	1.36	4.40	3.47	2.82	.33	.012	.10
MAX	4.5	3.5	17	5.0	40	2.2	50	23	13	2.8	.03	1.1
MIN	.00	.00	.26	.05	.36	.49	.49	.31	.18	.04	.00	.00
CFSM	.11	.25	1.84	.14	3.62	.62	1.99	1.57	1.28	.15	.01	.05
IN.	.12	.28	2.12	.16	3.77	.71	2.22	1.81	1.42	.17	.01	.05

CAL YR 1980 TOTAL 836.13 MEAN 2.28 MAX 53 MIN .00 CFSM 1.03 IN 14.07
WTR YR 1981 TOTAL 763.19 MEAN 2.09 MAX 50 MIN .00 CFSM .95 IN 12.84

03033222 BEAVER RUN NEAR TROUTVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1980 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: December 1979 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 845 mg/L Sept. 23, 1981; minimum daily, 0 mg/L on many days.
SEDIMENT DISCHARGES: Maximum daily, 99 tons (90 tonnes) Mar. 8, 1980; minimum daily, 0.0 ton (0.0 tonne) on many days.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 845 mg/L Sept.23; minimum daily, 0 mg/L on many days.
SEDIMENT DISCHARGES: Maximum daily, 34 tons (31 tonnes) Apr. 29; minimum daily, 0.0 ton (0.0 tonne) on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
APR											
21...	1315	80010	1.5	400	7.4	8.0	3.8	16	17	2390	3.2

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
APR										
21...	9.6	70	40	30	200	180	20	110	0	110

03033222 BEAVER RUN NEAR TROUTVILLE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGP (CFS)	MEAN CONCENTRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	.00	0	.00	.03	1	.00	1.4	6	.02
2	.00	0	.00	.02	1	.00	11	295	8.8
3	.00	0	.00	.00	0	.00	17	50	2.3
4	.00	0	.00	.00	0	.00	11	9	.27
5	.00	0	.00	.00	0	.00	8.3	5	.11
6	.00	0	.00	.00	0	.00	5.9	4	.06
7	.00	0	.00	.00	0	.00	5.5	6	.09
8	.00	0	.00	.36	29	.03	6.2	10	.17
9	.00	0	.00	.60	45	.07	9.0	29	.70
10	.00	0	.00	.56	13	.02	11	7	.21
11	.13	34	.01	.22	6	.00	8.1	5	.11
12	.00	0	.00	.14	4	.00	7.3	4	.08
13	.00	0	.00	.11	1	.00	6.7	4	.07
14	.00	0	.00	.11	1	.00	4.1	3	.03
15	.00	0	.00	.11	1	.00	2.5	3	.02
16	.00	0	.00	.10	1	.00	2.3	3	.02
17	.00	0	.00	.22	39	.02	1.8	3	.01
18	.00	0	.00	.28	23	.02	1.4	3	.01
19	.00	0	.00	.12	7	.00	.93	3	.00
20	.00	0	.00	.10	5	.00	.46	2	.00
21	.00	0	.00	.10	5	.00	.26	2	.00
22	.00	0	.00	.10	3	.00	.26	2	.00
23	.00	0	.00	.12	5	.00	.56	4	.00
24	.00	0	.00	3.5	58	.55	.49	3	.00
25	4.5	78	.95	3.3	16	.14	.31	2	.00
26	2.0	19	.10	1.6	7	.03	.26	2	.00
27	.31	6	.00	1.3	6	.02	.26	2	.00
28	.18	5	.00	1.3	5	.02	.26	2	.00
29	.10	3	.00	1.3	4	.01	.36	4	.00
30	.05	3	.00	1.2	4	.01	.53	5	.00
31	.05	1	.00	---	---	---	.42	3	.00
TOTAL	7.32	---	1.06	16.90	---	0.94	125.86	---	13.08

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	.36	3	.00	.81	6	.01	2.1	13	.07
2	.31	3	.00	14	173	6.5	2.1	10	.06
3	.26	2	.00	3.3	5	.04	1.8	8	.04
4	.22	2	.00	1.3	4	.01	2.1	6	.03
5	.18	2	.00	.56	4	.00	1.8	6	.03
6	.18	2	.00	.42	3	.00	1.6	5	.02
7	.22	3	.00	.36	3	.00	1.4	6	.02
8	.18	2	.00	.42	4	.00	1.2	7	.02
9	.15	2	.00	.49	6	.00	.92	6	.01
10	.12	2	.00	3.5	202	1.9	.92	5	.01
11	.12	2	.00	40	291	31	.92	5	.01
12	.08	1	.00	10	7	.19	1.0	7	.02
13	.06	1	.00	6.2	5	.08	2.1	11	.06
14	.06	1	.00	3.0	5	.04	1.9	10	.05
15	.08	1	.00	4.1	14	.15	1.6	9	.04
16	.08	1	.00	11	111	3.3	1.6	9	.04
17	.06	1	.00	8.7	92	2.2	1.4	9	.03
18	.06	1	.00	8.2	34	.75	1.3	9	.03
19	.06	1	.00	6.7	28	.51	1.0	9	.02
20	.06	1	.00	29	183	14	.92	8	.02
21	.06	1	.00	28	140	11	.82	8	.02
22	.06	1	.00	8.0	17	.37	.82	6	.01
23	.06	1	.00	13	127	4.5	.92	7	.02
24	.05	1	.00	9.5	29	.74	.72	7	.01
25	.05	1	.00	5.4	10	.15	.64	8	.01
26	.38	28	.03	3.1	12	.10	.49	9	.01
27	5.0	46	.62	2.2	11	.07	1.5	19	.08
28	.26	5	.00	2.7	15	.11	1.2	9	.03
29	.22	4	.00	---	---	---	1.0	7	.02
30	.15	3	.00	---	---	---	2.1	36	.20
31	.18	4	.00	---	---	---	2.2	13	.08
TOTAL	9.37	---	0.65	223.96	---	77.72	42.09	---	1.12

BEST DOCUMENT AVAILABLE

03033222 BEAVER RUN NEAR TROUTVILLE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	1.8	7	.03	7.1	21	.40	.18	4	.00
2	1.6	6	.03	3.9	18	.19	.74	64	.13
3	1.4	5	.02	2.6	14	.10	1.0	31	.08
4	1.3	4	.01	2.1	11	.06	2.4	52	.34
5	1.3	4	.01	1.7	10	.05	1.3	9	.03
6	1.0	5	.01	1.7	12	.06	1.0	7	.02
7	.64	8	.01	1.4	13	.05	.64	7	.01
8	.56	9	.01	1.2	10	.03	.42	7	.00
9	.64	9	.02	.92	8	.02	10	279	7.5
10	.49	8	.01	.72	7	.01	3.4	25	.23
11	.72	14	.03	15	340	14	2.2	11	.07
12	2.2	16	.10	12	59	1.9	1.6	8	.03
13	3.6	23	.22	3.8	17	.17	1.5	34	.14
14	10	103	2.8	4.5	324	3.9	4.2	76	.86
15	6.4	58	1.0	23	345	21	3.1	17	.14
16	3.9	9	.09	6.8	14	.26	2.4	21	.14
17	4.3	17	.20	3.9	9	.09	3.8	26	.27
18	3.1	9	.08	2.8	7	.05	2.2	10	.06
19	2.2	6	.04	2.2	5	.03	1.8	8	.04
20	1.9	4	.02	1.9	5	.03	1.4	7	.03
21	1.5	2	.00	1.6	5	.02	1.5	27	.11
22	1.4	2	.00	1.3	6	.02	8.0	271	5.9
23	1.7	10	.05	1.2	5	.02	2.6	17	.12
24	2.1	8	.05	.82	5	.01	2.1	8	.05
25	1.6	5	.02	.72	5	.00	13	316	11
26	1.4	4	.02	.56	6	.00	4.8	24	.31
27	1.3	4	.01	.49	5	.00	2.6	12	.08
28	5.8	149	2.3	.49	5	.00	1.9	11	.06
29	50	249	34	.42	6	.00	1.6	10	.04
30	16	31	1.3	.36	5	.00	1.3	9	.03
31	---	---	---	.31	5	.00	---	---	---
TOTAL	131.85	---	42.49	107.51	---	42.47	84.68	---	27.82

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	.92	8	.02	.03	6	.00	.00	0	.00
2	.82	6	.01	.02	5	.00	.01	20	.00
3	.64	5	.00	.03	5	.00	.03	9	.00
4	.38	5	.00	.03	7	.00	1.1	161	.48
5	.36	5	.00	.02	6	.00	.10	10	.00
6	.31	5	.00	.02	4	.00	.03	9	.00
7	.22	5	.00	.02	8	.00	.01	7	.00
8	.18	5	.00	.03	6	.00	.09	30	.00
9	.17	5	.00	.02	5	.00	.04	8	.00
10	.12	5	.00	.01	5	.00	.01	6	.00
11	.08	4	.00	.01	12	.00	.01	6	.00
12	.07	4	.00	.02	9	.00	.01	6	.00
13	.06	4	.00	.02	7	.00	.01	4	.00
14	.06	4	.00	.01	6	.00	.00	0	.00
15	.05	3	.00	.01	6	.00	.05	28	.00
16	.05	3	.00	.02	15	.00	.02	6	.00
17	.04	3	.00	.02	9	.00	.64	120	.21
18	.04	3	.00	.02	6	.00	.08	6	.00
19	.04	8	.00	.01	4	.00	.05	5	.00
20	2.8	397	3.0	.00	0	.00	.04	5	.00
21	1.6	60	.26	.00	0	.00	.03	4	.00
22	.42	15	.02	.00	0	.00	.03	3	.00
23	.17	10	.00	.00	0	.00	.23	845	.52
24	.13	9	.00	---	0	---	.15	350	.14
25	.10	9	.00	.00	0	.00	.23	560	.35
26	.10	7	.00	.00	0	.00	.01	5	.00
27	.08	7	.00	.00	0	.00	.01	3	.00
28	.08	7	.00	.00	0	.00	.00	0	.00
29	.08	8	.00	.00	0	.00	.00	0	.00
30	.05	10	.00	.00	0	.00	.00	0	.00
31	.04	7	.00	.00	0	.00	---	---	---
TOTAL	10.26	---	3.31	0.37	---	0.00	3.02	---	1.70
YEAR	763.19		212.36						

03033225 EAST BRANCH MAHONING CREEK NEAR BIG RUN, PA

LOCATION.--Lat 40°57'49", long 78°50'58", Jefferson County, Hydrologic Unit 05010006, on left bank 100 ft (30 m) upstream from Clover Run, and 1.2 mi (1.9 km) southeast of Big Run.

DRAINAGE AREA.--29.6 mi^2 (76.7 km^2).

WATER-DISCHARGE RECORD

PERIOD OF RECORD.--June 1979 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 1,310 ft (399 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Nov. 13, to Jan. 27, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 650 ft^3/s (18.4 m^3/s) Nov. 26, 1979, gage height, 4.02 ft (1.225 m); minimum discharge, 5.2 ft^3/s (0.15 m^3/s) Sept. 27, 28, 29, 30, 1980, gage height, 0.62 ft (0.189 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 320 ft^3/s (9.06 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)			(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 20	0900	354	10.0	3.13	0.954	Apr. 29	0330	446	12.6	3.44	1.049
Feb. 21	0100	*614	17.4	*3.92	1.195	June 9	1030	368	10.4	3.18	0.969

Minimum discharge, 5.4 ft^3/s (0.15 m^3/s) Oct. 1, 2, 9, 10, gage height, 0.63 ft (0.192 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	12	38	20	21	82	67	145	14	32	11	7.4
2	5.4	11	54	16	100	69	63	108	30	31	11	7.7
3	6.2	10	90	21	90	58	54	86	24	27	10	11
4	6.8	10	70	30	100	56	48	70	97	24	11	62
5	6.0	10	60	30	170	48	50	59	51	22	10	27
6	5.7	10	54	30	148	44	43	58	39	21	9.4	14
7	5.7	9.0	53	21	118	39	36	48	32	17	9.4	11
8	5.7	22	53	29	56	35	33	39	25	16	10	19
9	5.4	25	52	25	100	31	35	33	143	15	9.2	17
10	5.4	28	80	18	43	31	31	31	91	14	8.7	11
11	13	18	70	18	100	31	32	99	74	13	8.7	9.5
12	7.7	16	62	18	135	30	66	133	54	12	10	8.8
13	6.5	15	62	21	100	44	82	91	45	12	8.4	8.4
14	6.5	14	56	21	89	56	158	87	83	12	8.4	8.4
15	7.1	14	44	21	70	50	138	183	124	11	8.4	17
16	6.5	13	50	20	70	58	113	126	73	11	9.4	12
17	5.7	13	44	17	135	50	106	84	139	10	8.7	20
18	5.4	12	38	17	210	43	88	82	82	9.8	7.7	12
19	6.2	11	37	17	217	36	69	68	67	9.8	7.4	10
20	6.0	11	22	15	358	36	59	57	56	80	7.1	9.4
21	6.0	11	33	13	406	35	48	46	52	70	6.8	8.7
22	5.7	16	29	13	220	34	42	38	107	32	6.8	8.7
23	5.7	34	24	11	208	34	53	32	72	18	6.5	8.7
24	5.7	60	24	9.0	183	36	65	29	49	16	6.5	8.0
25	96	52	24	12	145	33	53	25	98	15	6.8	7.7
26	71	46	27	12	117	32	45	22	108	16	6.5	7.4
27	26	42	19	25	95	59	44	20	71	17	6.5	7.1
28	22	40	23	24	92	43	102	18	56	18	6.5	7.1
29	17	39	19	21	---	47	337	17	45	24	6.5	6.8
30	15	39	22	21	---	68	200	17	38	16	7.2	7.1
31	13	---	20	20	---	76	---	16	---	13	9.6	---
TOTAL	411.7	663.0	1353	606.0	3896	1430	2360	1967	2039	654.6	260.1	379.9
MEAN	13.3	22.1	43.6	19.5	139	46.1	78.7	63.5	68.0	21.1	8.39	12.7
MAX	96	60	90	30	406	82	337	183	143	80	11	62
MIN	5.4	9.0	19	9.0	21	30	31	16	14	9.8	6.5	6.8
CFSM	.45	.75	1.47	.66	4.70	1.56	2.66	2.15	2.30	.71	.28	.43
IN.	.52	.83	1.70	.76	4.90	1.80	2.97	2.47	2.56	.82	.33	.48

CAL YR 1980 TOTAL 16455.7 MEAN 45.0 MAX 335 MIN 5.2 CFSM 1.52 IN 20.68
WTR YR 1981 TOTAL 16020.3 MEAN 43.9 MAX 406 MIN 5.4 CFSM 1.48 IN 20.13

03033225 EAST BRANCH MAHONING CREEK NEAR BIG RUN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: June 1979 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 1,310 mg/L Aug. 15, 1980; minimum daily, 1 mg/L on many days.
SEDIMENT DISCHARGES: Maximum daily, 605 tons (549 tonnes) Aug. 15, 1980; minimum daily, 0.01 ton (0.01 tonne) Sept. 27, 28, Oct. 2, 9, 10, 1980.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 1,070 mg/L July 20; minimum daily, 1 mg/L on many days.
SEDIMENT DISCHARGES: Maximum daily, 381 tons (346 tonnes) Feb. 21; minimum daily, 0.01 ton (0.01 tonne) Oct. 2, 9, 10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
APR										
21...	1215	80010	48	250	6.2	7.0	5.4	10	67	157

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON SUSPENDED RECOVERABLE (UG/L) AS FE)
APR								
21...	.21	20.3	80	50	30	1600	300	250

DATE	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
APR									
21...	50	9500	350	30	320	2000	80	10	1.3

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
JUN							
04...	1150	172	--	1390	646	74	91
04...	1310	176	--	575	273	74	94

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
JUN							
04...	97	99	99	99	99	100	--
04...	95	97	99	99	99	99	100

03033225 EAST BRANCH MAHONING CREEK NEAR BIG RUN, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 19801TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	5.7	1	.02	12	55	1.8	38	23	2.4
2	5.4	1	.01	11	35	1.0	54	30	4.4
3	6.2	3	.05	10	5	.14	90	50	12
4	6.8	3	.06	10	6	.16	70	56	11
5	6.0	2	.03	10	8	.22	60	51	8.3
6	5.7	1	.02	10	10	.27	54	46	6.7
7	5.7	1	.02	9.0	13	.32	53	42	6.0
8	5.7	1	.02	22	21	1.2	53	36	5.2
9	5.4	1	.01	25	14	.95	52	30	4.2
10	5.4	1	.01	28	25	1.9	80	60	13
11	13	26	.91	18	14	.68	70	54	10
12	7.7	16	.33	16	6	.26	62	50	8.4
13	6.5	7	.12	15	6	.24	62	41	6.9
14	6.5	3	.05	14	6	.23	56	38	5.7
15	7.1	1	.02	14	6	.23	44	30	3.6
16	6.5	1	.02	13	6	.21	50	35	4.7
17	5.7	1	.02	13	6	.21	44	29	3.4
18	5.4	2	.03	12	6	.19	38	24	2.5
19	6.2	3	.05	11	5	.15	37	20	2.0
20	6.0	2	.03	11	5	.15	22	15	.89
21	6.0	2	.03	11	5	.15	33	20	1.8
22	5.7	1	.02	16	8	.35	29	21	1.6
23	5.7	1	.02	34	13	1.2	24	20	1.3
24	5.7	1	.02	60	22	3.6	24	18	1.2
25	96	288	75	52	38	5.3	24	17	1.1
26	71	34	6.5	46	34	4.2	27	20	1.5
27	26	11	.77	42	31	3.5	19	14	.72
28	22	9	.53	40	30	3.2	23	13	.81
29	17	7	.32	39	26	2.7	19	12	.62
30	15	6	.24	39	25	2.6	22	17	1.0
31	13	5	.18	---	---	---	20	14	.76
TOTAL	411.7	---	85.46	663.0	---	37.31	1353	---	133.70

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	20	12	.65	21	11	.62	82	30	6.6
2	16	9	.39	100	20	5.4	69	21	3.9
3	21	10	.57	90	70	17	58	17	2.7
4	30	20	1.6	100	64	17	56	12	1.8
5	30	25	2.0	170	135	62	48	9	1.2
6	30	18	1.5	148	110	44	44	9	1.1
7	21	15	.85	118	100	32	39	8	.84
8	29	20	1.6	56	45	6.8	35	7	.66
9	25	16	1.1	100	60	16	31	9	.75
10	18	11	.53	43	26	3.0	31	15	1.3
11	18	8	.39	100	48	13	31	7	.59
12	18	7	.34	135	100	36	30	8	.65
13	21	7	.40	100	85	23	44	18	2.1
14	21	6	.34	89	70	17	56	21	3.2
15	21	6	.34	70	63	12	50	25	3.4
16	20	6	.32	70	60	11	58	15	2.3
17	17	5	.23	135	80	29	50	18	2.4
18	17	5	.23	210	130	74	43	16	1.9
19	17	4	.18	217	200	117	36	14	1.4
20	15	4	.16	358	329	318	36	12	1.2
21	13	4	.14	406	348	381	35	13	1.2
22	13	4	.14	220	118	70	34	18	1.7
23	11	4	.12	208	166	93	34	12	1.1
24	9.0	3	.07	183	125	62	36	10	.97
25	12	4	.13	145	100	39	33	12	1.1
26	12	5	.16	117	75	24	32	10	.86
27	25	8	.54	95	50	13	59	28	4.5
28	24	15	.97	92	40	9.9	49	12	1.6
29	21	14	.79	---	---	---	47	9	1.1
30	21	13	.74	---	---	---	68	27	5.0
31	20	12	.65	---	---	---	76	19	3.9
TOTAL	606.0	---	18.17	3896	---	1545.72	1430	---	63.02

BEST DOCUMENT AVAILABLE

03033225 EAST BRANCH MAHONING CREEK NEAR BIG RUN, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 19801TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	67	15	2.7	145	34	13	14	5	.19
2	63	10	1.7	108	27	7.9	30	30	2.4
3	54	8	1.2	86	22	5.1	24	18	1.2
4	48	13	1.7	70	18	3.4	97	529	139
5	50	17	2.3	59	14	2.2	51	87	12
6	43	10	1.2	38	22	3.4	39	27	2.8
7	36	9	.87	48	10	1.3	32	21	1.8
8	33	8	.71	39	8	.84	25	17	1.1
9	35	14	1.3	33	7	.62	143	942	364
10	31	11	.92	31	6	.50	91	67	16
11	32	15	1.3	99	164	44	74	38	7.6
12	66	28	5.0	133	96	34	54	24	3.5
13	82	38	8.4	91	12	2.9	45	18	2.2
14	158	130	55	87	107	25	83	291	65
15	138	52	19	183	176	87	124	335	112
16	113	17	5.2	126	12	4.1	73	84	17
17	106	27	7.7	84	12	2.7	139	329	123
18	88	31	7.4	82	13	2.9	82	36	8.0
19	69	24	4.5	68	10	1.8	67	21	3.8
20	59	18	2.9	57	9	1.4	56	50	7.6
21	48	15	1.9	46	7	.87	52	18	2.5
22	42	13	1.5	38	7	.72	107	402	116
23	53	28	4.0	32	7	.60	72	93	18
24	65	23	4.0	29	6	.47	49	23	3.0
25	53	14	2.0	25	6	.41	98	495	131
26	45	10	1.2	22	6	.36	108	189	55
27	44	14	1.7	20	6	.32	71	24	4.6
28	102	175	48	18	5	.24	56	19	2.9
29	337	186	169	17	5	.23	45	19	2.3
30	200	40	22	17	5	.23	38	17	1.7
31	---	---	---	16	5	.22	---	---	---
TOTAL	2360	---	386.30	1967	---	248.73	2039	---	1227.19

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	32	16	1.4	11	20	.59	7.4	8	.16
2	31	15	1.3	11	17	.50	7.7	7	.15
3	27	13	.95	10	16	.43	11	34	1.0
4	24	10	.65	11	13	.39	62	297	50
5	22	9	.53	10	10	.27	27	32	2.3
6	21	8	.45	9.4	10	.25	14	16	.60
7	17	8	.37	9.4	10	.25	11	15	.45
8	16	7	.30	10	10	.27	19	61	3.1
9	15	6	.24	9.2	9	.22	17	35	1.6
10	14	6	.23	8.7	9	.21	11	10	.30
11	13	7	.25	8.7	9	.21	9.5	8	.21
12	12	7	.23	10	9	.24	8.8	6	.14
13	12	7	.23	8.4	8	.18	8.4	5	.11
14	12	7	.23	8.4	8	.18	8.4	5	.11
15	11	6	.18	8.4	8	.18	17	48	2.2
16	11	6	.18	9.4	10	.25	12	14	.45
17	10	6	.16	8.7	9	.21	20	41	2.2
18	9.8	5	.13	7.7	8	.17	12	12	.39
19	9.8	7	.19	7.4	7	.14	10	9	.24
20	80	1070	231	7.1	7	.13	9.4	8	.20
21	70	806	152	6.8	7	.13	8.7	8	.19
22	32	229	20	6.8	7	.13	8.7	8	.19
23	18	38	1.8	6.5	6	.11	8.7	8	.19
24	16	25	1.1	6.5	6	.11	8.0	7	.15
25	15	20	.81	6.8	6	.11	7.7	6	.12
26	16	31	1.3	6.5	6	.11	7.4	6	.12
27	17	54	2.5	6.5	5	.09	7.1	6	.12
28	18	60	2.9	6.5	5	.09	7.1	5	.10
29	24	221	14	6.5	5	.09	6.8	5	.09
30	16	25	1.1	7.2	10	.19	7.1	5	.10
31	13	20	.70	9.6	12	.31	---	---	---
TOTAL	654.6	---	437.41	260.1	---	6.74	379.9	---	67.28
YEAR	16020.3		4257.03						

03034000 MAHONING CREEK AT PUNXSUTAWNEY, PA

LOCATION.--Lat 40°56'21", long 79°00'31", Jefferson County, Hydrologic Unit 05010006, on right bank 75 ft (23 m) downstream from Williams Run, 1.9 mi (3.1 km) downstream from Sawmill Run, and 2 mi (3 km) west of Punxsutawney.

DRAINAGE AREA.--158 mi² (409 km²).

PERIOD OF RECORD.--October 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,206.14 ft (367.631 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Oct. 1, 1946, at site 2.9 mi (4.7 km) upstream at datum 13.30 ft (4.054 m) higher.

REMARKS.--Records good except those for winter periods and those for period of no gage-height record July 2 to Aug. 26, which are fair. Diurnal fluctuations at low flow by mine pumpage into stream above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 277 ft³/s (7.84 m³/s), 23.81 in/yr (605 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft³/s (490 m³/s) June 23, 1972, gage height, 15.94 ft (4.859 m), floodmark in well, from rating curve extended above 4,300 ft³/s (120 m³/s) on basis of slope-area measurement at gage height 13.01 ft (3.965 m); maximum gage height 16.22 ft (4.944 m) July 20, 1977; minimum discharge, 2.6 ft³/s (0.074 m³/s) Sept. 26, 1939.

EXTREMES FOR OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 15.6 ft (4.75 m), from floodmark at former site and datum, discharge, 12,500 ft³/s (354 m³/s), from rating curve extended above 4,300 ft³/s (120 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,520 ft³/s (71.4 m³/s) Feb. 21, gage height, 7.05 ft (2.149 m), no other peak above base of 2,500 ft³/s (70.8 m³/s); minimum, 33 ft³/s (0.93 m³/s) Aug. 28, gage height 0.97 ft (0.296 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	93	207	118	110	478	391	872	120	170	98	48
2	44	85	291	112	310	412	370	646	182	130	80	56
3	47	78	534	105	290	363	324	513	195	115	68	80
4	47	78	388	100	440	317	294	429	443	100	120	342
5	45	75	328	130	620	321	288	370	300	160	100	249
6	41	70	282	120	450	297	264	349	225	110	80	122
7	41	67	270	110	320	264	228	310	192	74	74	90
8	41	128	279	125	230	243	210	264	158	66	84	98
9	41	146	294	110	380	225	216	234	531	62	84	130
10	40	187	433	100	200	222	207	219	499	58	82	86
11	67	146	366	96	400	222	197	356	384	56	70	72
12	59	126	324	100	744	210	373	720	285	56	72	65
13	45	114	300	110	563	261	499	524	243	46	78	61
14	43	108	264	115	489	291	808	433	317	52	66	59
15	43	102	216	110	363	261	824	956	583	49	72	118
16	47	95	231	110	349	288	643	748	457	45	78	108
17	43	88	200	105	724	261	580	583	601	43	86	175
18	41	98	185	100	980	231	531	475	419	42	96	136
19	43	97	175	92	1110	225	429	405	338	70	70	104
20	41	85	124	84	1610	213	384	345	285	400	60	91
21	38	85	175	74	2170	207	331	294	276	280	52	80
22	37	90	150	66	1310	195	297	258	436	160	47	75
23	36	88	136	62	1100	210	324	225	401	100	46	72
24	34	202	134	56	1120	216	408	202	279	78	42	64
25	237	440	138	54	848	202	356	187	464	72	39	59
26	489	321	156	60	660	195	310	170	604	76	35	56
27	213	270	120	70	545	264	297	160	405	90	34	54
28	162	252	134	96	506	261	419	154	317	160	33	53
29	140	237	118	84	---	246	1740	158	261	330	34	48
30	114	207	132	80	---	331	1330	144	225	200	40	48
31	102	---	136	80	---	440	---	136	---	120	61	---
TOTAL	2505	4258	7220	2934	18941	8372	13872	11839	10425	3570	2081	2899
MEAN	80.8	142	233	94.6	676	270	462	382	348	115	67.1	96.6
MAX	489	440	534	130	2170	478	1740	956	604	400	120	342
MIN	34	67	118	54	110	195	197	136	120	42	33	48
CFSM	.51	.90	1.48	.60	4.28	1.71	2.92	2.42	2.20	.73	.43	.61
IN.	.59	1.00	1.70	.69	4.46	1.97	3.27	2.79	2.45	.84	.49	.68

CAL YR 1980 TOTAL 99471 MEAN 272 MAX 1630 MIN 28 CFSM 1.72 IN 23.42
WTR YR 1981 TOTAL 88916 MEAN 244 MAX 2170 MIN 33 CFSM 1.54 IN 20.93

03034500 LITTLE MAHONING CREEK AT McCORMICK, PA

LOCATION.--Lat 40°50'10", long 79°06'37", Indiana County, Hydrologic Unit 05010006, on left bank 200 ft (60 m) upstream from highway bridge at McCormick, 1 mi (2 km) west of Georgeville, 1.7 mi (2.7 km) upstream from Ross Run, and 4 mi (6 km) southeast of Smicksburg.

DRAINAGE AREA.--87.4 mi^2 (226.4 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,164.88 ft (355.055 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to May 10, 1940, nonrecording gage at site 200 ft (60 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 153 ft^3/s (4.333 m^3/s), 23.77 in/yr (604 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft^3/s (176 m^3/s) June 23, 1972, gage height, 13.20 ft (4.023 m); maximum gage height, 14.03 ft (4.276 m) Feb. 25, 1977 (backwater from ice); minimum discharge, 0.3 ft^3/s (0.008 m^3/s) Sept. 28, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,300 ft^3/s (93.5 m^3/s) Feb. 18, gage height, 10.12 ft (3.085 m), no other peak above base of 2,000 ft^3/s (56.6 m^3/s); minimum, 8.6 ft^3/s (0.244 m^3/s) Aug. 30, gage height, 1.23 ft (0.375 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	59	140	56	50	258	208	468	40	61	65	31
2	11	51	173	50	90	204	189	312	96	60	50	24
3	13	43	379	46	240	177	162	224	126	61	42	26
4	13	39	233	42	150	150	143	179	412	44	110	350
5	13	39	189	37	115	152	146	152	161	98	52	220
6	12	34	164	35	100	141	131	141	122	90	38	110
7	11	31	152	38	88	120	108	125	101	51	37	69
8	11	52	167	42	78	108	98	102	65	38	37	102
9	11	88	175	38	70	99	98	84	307	34	36	170
10	10	146	394	37	120	105	89	76	188	31	33	83
11	27	101	259	36	250	114	104	128	138	26	30	58
12	24	76	209	35	410	111	687	244	101	22	32	45
13	14	62	187	34	170	156	653	159	81	21	31	37
14	12	55	156	35	230	162	996	134	173	25	27	36
15	12	52	117	36	200	137	712	533	155	20	29	174
16	11	46	139	34	170	195	437	382	113	18	32	126
17	11	39	105	33	290	177	350	268	158	18	32	140
18	11	42	108	32	450	149	312	200	96	16	27	105
19	12	59	87	31	715	141	228	165	74	16	20	80
20	16	46	93	30	1180	128	193	140	61	380	17	64
21	12	61	122	30	1580	125	162	116	74	240	15	50
22	11	52	98	30	789	116	143	96	149	146	12	45
23	11	47	80	30	737	146	177	80	96	79	11	40
24	10	204	66	30	761	158	295	66	62	55	10	36
25	178	527	56	31	505	141	212	59	420	44	10	36
26	614	295	46	33	350	132	174	51	400	62	10	30
27	195	207	45	45	262	186	155	46	188	99	11	27
28	137	184	44	62	256	168	158	41	134	146	9.6	30
29	119	170	47	56	---	155	1200	44	99	307	8.8	30
30	86	143	54	46	---	230	811	46	79	143	9.0	27
31	69	---	60	41	---	242	---	61	---	93	60	---
TOTAL	1709	3050	4344	1191	10406	4783	9531	4922	4469	2544	943.4	2401
MEAN	55.1	102	140	38.4	372	154	318	159	149	82.1	30.4	80.0
MAX	614	527	394	62	1580	258	1200	533	420	380	110	350
MIN	10	31	44	30	50	99	89	41	40	16	8.8	24
CFSM	.63	1.17	1.60	.44	4.26	1.76	3.64	1.82	1.71	.94	.35	.92
IN.	.73	1.30	1.85	.51	4.43	2.04	4.06	2.09	1.90	1.08	.40	1.02

CAL YR 1980 TOTAL 59857.0 MEAN 164 MAX 1840 MIN 10 CFSM 1.88 IN 25.48
WTR YR 1981 TOTAL 50293.4 MEAN 138 MAX 1580 MIN 8.8 CFSM 1.58 IN 21.41

03034500 LITTLE MAHONING CREEK AT McCORMICK, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
MAR 24...	1440	150	210	7.3	5.0	48	45	118	.16
AUG 11...	1250	26	300	8.0	24.0	28	61	203	.28

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR 24...	47.8	630	590	40	340	0	340	37	15
AUG 11...	14.5	660	610	50	80	20	60	41	2.9

03036000 MAHONING CREEK AT MAHONING CREEK DAM, PA

LOCATION.--Lat 40°55'39", long 79°17'29", Armstrong County, Hydrologic Unit 05010006, on left bank at downstream side of highway bridge at McCrea Furnace, 700 ft (213 m) downstream from Camp Run, 0.9 mi (1.4 km) downstream from Mahoning Creek Dam, 1 mi (2 km) southwest of Eddyville, and 2.1 (3.4 km) upstream from Pine Run.

DRAINAGE AREA.--344 mi^2 (891 km^2).

PERIOD OF RECORD.--August 1938 to current year. Monthly discharge only for August 1938, published in WSP 1305.

REVISED RECORDS.--WSP 1305: 1941 (adjusted monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 1,003.39 ft (305.833 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Feb. 1, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow completely regulated since 1941 by Mahoning Creek Lake 0.9 mi (1.4 km) upstream. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

COOPERATION.--One discharge measurement furnished by Corps of Engineers.

AVERAGE DISCHARGE.--43 years, 598 ft^3/s (16.94 m^3/s), 23.61 in/yr (600 mm/yr), adjusted for storage since June 1941.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft^3/s (295 m^3/s) Mar. 8, 1942, gage height, 8.10 ft (2.469 m); minimum daily, 4.6 ft^3/s (0.13 m^3/s) July 26, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,900 ft^3/s (110 m^3/s) Feb. 24, gage height, 6.30 ft (1.920 m); minimum daily, 35 ft^3/s (0.99 m^3/s) Aug. 18-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 19ER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	708	689	307	130	2600	665	2570	260	303	189	51
2	63	522	588	263	340	2550	772	2510	262	288	189	73
3	63	189	476	200	550	2450	772	2420	268	284	189	75
4	63	127	617	200	825	2000	766	1970	547	282	192	174
5	63	141	754	210	825	1140	758	1580	744	284	192	576
6	63	141	754	215	818	516	746	910	733	281	192	916
7	63	92	740	210	811	509	731	489	502	279	195	618
8	63	98	734	200	804	506	583	486	254	240	195	228
9	63	274	727	190	790	501	375	482	262	142	195	189
10	63	410	1100	185	776	500	257	478	501	79	141	189
11	63	311	1120	190	780	497	258	483	916	77	77	189
12	94	135	708	195	811	495	499	1040	881	77	63	189
13	130	229	708	195	1170	494	793	1190	549	77	39	189
14	130	127	600	200	1650	497	880	730	268	75	37	192
15	127	56	380	195	1590	500	1800	753	408	84	37	144
16	92	55	267	192	1220	505	2510	1080	638	96	37	77
17	63	88	267	189	860	624	2430	1370	782	96	36	168
18	65	144	270	189	944	748	2320	1350	787	96	35	435
19	63	144	270	141	1050	735	1910	1310	780	98	35	546
20	63	147	270	86	1140	613	1130	1010	765	153	35	335
21	63	147	270	82	1180	478	812	638	748	958	35	138
22	65	147	270	80	1580	477	648	480	622	1120	55	75
23	65	150	274	80	2030	472	483	374	492	522	77	71
24	65	210	277	80	2770	472	614	264	494	405	79	71
25	106	516	270	80	3820	472	743	266	404	270	79	71
26	210	727	270	115	3740	472	743	267	584	270	79	71
27	390	727	270	177	3660	474	739	265	1080	270	79	71
28	540	721	270	183	3120	588	747	264	1130	270	60	71
29	654	714	232	222	---	704	870	261	514	425	36	71
30	769	702	189	120	---	605	1920	260	292	528	37	70
31	741	---	239	120	---	502	---	260	---	375	37	---
TOTAL	5188	8899	14870	5291	39784	24696	29274	27810	17467	8804	2953	6333
MEAN	167	297	480	171	1421	797	976	897	582	284	95.3	211
MAX	769	727	1120	307	3820	2600	2510	2570	1130	1120	195	916
MIN	63	55	189	80	130	472	257	260	254	75	35	51
†	+14.1	-5.4	-15.8	+14.9	+260	-230	+165	-175	+28.4	+26.5	+12.2	+4.4
MEAN‡	181	292	464	186	1681	567	1141	722	610	310	108	215
CFSM‡	.53	.85	1.35	.54	4.89	1.65	3.32	2.10	1.77	.90	.31	.62
IN.‡	.61	.95	1.56	.62	5.09	1.90	3.70	2.42	1.97	1.04	.36	.69

CAL YR 1980 TOTAL 222165 MEAN 607 MAX 2660 MIN 55 ADJ -.07 MEAN‡ 606 CFSM‡ 1.76 IN.‡ 23.97
WTR YR 1981 TOTAL 191369 MEAN 524 MAX 3820 MIN 35 ADJ +5.8 MEAN‡ 530 CFSM‡ 1.54 IN.‡ 20.91

† Change in contents, equivalent in cubic feet per second, in Mahoning Creek Lake
‡ Adjusted for change in reservoir contents.

03036500 ALLEGHENY RIVER AT KITTANNING, PA

LOCATION.--Lat 40°49'13", long 79°31'54", Armstrong County, Hydrologic Unit 05010006, on right bank 600 ft (180 m) upstream from dam at lock 7 at Kittanning, 5.7 mi (9.2 km) upstream from Crooked Creek, 9.7 mi (15.6 km) downstream from Mahoning Creek, and at mile 45.8 (73.7 km).

DRAINAGE AREA.--8,973 mi^2 (23,240 km^2).

PERIOD OF RECORD.--August 1904 to September 1928, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 873: Drainage area. WSP 1305: 1906 (M), 1914, 1925. WSP 1435: 1936-37, 1939.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 771.32 ft (235.098 m) National Geodetic Vertical Datum, adjustment of 1912. Prior to Sept. 30, 1928, nonrecording gage at site 4,000 ft (1,200 m) downstream at different datum. Oct. 1, 1934, to Apr. 19, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow regulated since 1965 by Allegheny Reservoir, since 1949 by Chautauqua Lake, since 1941 by Tionesta Lake, since 1971 by Union City Reservoir, since 1974 by Woodcock Creek Lake, since 1952 by East Branch Clarion River Lake, since 1924 by Piney Reservoir, and since 1941 by Mahoning Creek Lake. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--71 years (1904-28, 1934-81), 15,700 ft^3/s (444.6 m^3/s), 23.76 in/yr (604 mm/yr), adjusted for storage 1940-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 269,000 ft^3/s (7,620 m^3/s) Mar. 26, 1913, gage height, 30.7 ft (9.36 m) from floodmark, site and datum then in use; minimum observed, 570 ft^3/s (16.1 m^3/s) Sept. 15-17, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 130,000 ft^3/s (3,680 m^3/s) Feb. 20, gage height, 21.73 ft (6.623 m); minimum, 1,730 ft^3/s (49.0 m^3/s) July 28, gage height, 11.52 ft (3.511 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4050	19100	14000	12100	12500	54900	23300	63200	8530	18500	12400	4690
2	4100	17100	14700	10800	15000	51500	20900	53700	9450	12900	9070	5310
3	4000	15300	23400	11600	20000	48200	20200	47000	10300	9150	7470	10200
4	4200	14400	25600	8670	21000	44900	18200	41600	10100	7980	7220	15100
5	4410	13300	22200	7400	18000	40500	16500	37000	15200	8000	7900	20200
6	4780	12400	19600	7400	15000	36900	19900	33800	16500	11300	6220	17500
7	5110	12000	18000	7800	15200	33100	19700	29100	13900	9490	5200	16000
8	5000	11400	17100	9000	14000	29300	16400	23900	11400	7980	5060	15300
9	5110	11200	22100	8600	13000	28400	14100	19200	44100	6490	13600	16600
10	5060	13700	30000	10500	12000	21400	13600	14300	57600	6170	9840	14300
11	5170	16100	30000	9600	11000	19400	13600	12800	34000	5240	8350	12100
12	4680	15300	27800	8800	17000	17300	12400	17900	26000	4820	8330	10300
13	4620	14400	25800	9600	19000	16600	14600	20100	21300	3980	7690	8800
14	5110	13600	24400	11000	21000	15400	17200	20700	19300	4030	7870	8030
15	6650	12800	22000	13500	23000	15200	26300	23100	27100	3540	7340	8860
16	6970	12200	19800	12000	22000	14600	31400	24500	34800	3880	8030	8620
17	6590	11000	18100	10500	27000	16100	28800	24900	31400	3930	10400	8860
18	6340	11500	17300	9600	47400	16100	27800	24300	26900	3800	9870	8850
19	5810	11100	17000	9600	76200	14800	25500	22500	22400	3890	7810	7860
20	5460	10800	15400	11000	113000	12400	23700	21200	19300	4770	6410	7230
21	5630	10500	10500	12000	104000	11600	20100	18700	16000	7510	4890	6430
22	5860	10600	10300	12000	78500	10200	19500	16500	16400	9360	4320	6420
23	6970	9680	10300	11600	71500	10400	20100	14300	18300	6970	3480	6150
24	7880	10500	11800	11400	75200	11400	26200	10600	15500	5910	3650	6260
25	10500	14900	9750	11000	65600	12100	31800	9070	14700	4850	3970	7100
26	25600	18100	8700	10500	60600	12400	31700	8400	18800	4200	3960	6970
27	27900	18300	8700	11400	57700	14100	28100	8220	14500	4000	4170	5950
28	23700	15600	9470	13000	55600	19100	25900	8530	11800	3950	3780	6100
29	22100	15800	9900	13200	---	19800	61800	9790	9480	8000	3690	6250
30	20900	14500	10800	13000	---	18000	85600	10900	8460	16700	3850	5520
31	20200	---	11000	13000	---	19700	---	9440	---	13500	4400	---
TOTAL	280460	407180	535520	331170	1101000	705800	754900	699250	603520	224790	210240	287860
MEAN	9047	13570	17270	10680	39320	22770	25160	22560	20120	7251	6782	9595
MAX	27900	19100	30000	13500	113000	54900	85600	63200	57600	18500	13600	20200
MIN	4000	9680	8700	7400	11000	10200	12400	8220	8460	3540	3480	4690

CAL YR 1980 TOTAL 5667300 MEAN 15480 MAX 61800 MIN 3280
WTR YR 1981 TOTAL 6141690 MEAN 16830 MAX 113000 MIN 3480

03038000 CROOKED CREEK AT IDAHO, PA

LOCATION.--Lat 40°39'17", long 79°20'56", Armstrong County, Hydrologic Unit 05010006, on right bank at downstream end of old bridge abutment at Idaho, 0.4 mi (0.6 km) downstream from Keystone Generation Station, 1.5 mi (2.4 km) downstream from Plum Creek, and 2.4 mi (3.9 km) west of Shelocta.

DRAINAGE AREA.--191 mi² (495 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods published in WSP 1305.

REVISED RECORDS.--WSP 1385: 1938, 1945.

GAGE.--Water-stage recorder and concrete weir control. Datum of gage is 961.04 ft (292.925 m) National Geodetic Vertical Datum of 1929 (Baltimore and Ohio Railroad bench mark).

REMARKS.--Records fair. Flow regulated to some extent since March 1968 by Keystone Lake 7 mi (11 km) upstream, usable capacity, 22,010 acre-ft (27.1 hm³). Evaporation from operation of steam-electric plant 0.4 mi (0.6 km) upstream, which began during July 1967, can amount to as much as 30 ft³/s (0.85 m³/s). Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--44 years, 294 ft³/s (8.326 m³/s), 20.90 in/yr (531 mm/yr), adjusted for storage since March 1968.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft³/s (374 m³/s) June 23, 1972, gage height, 15.93 ft (4.855 m); minimum daily, 1.0 ft³/s (0.028 m³/s) Oct. 22, 1966, result of abnormal regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 18.6 ft (5.67 m), from floodmark, discharge, 19,400 ft³/s (549 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft³/s (70.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 21	0800	*4460	126	*8.87	2.704	July 5	2300	2630	74.5	6.42	1.957
Apr. 14	2030	2500	70.8	6.28	1.914	Sept. 4	0930	3860	109	8.02	2.444
June 25	2130	3560	101	7.58	2.310						

Minimum discharge, 20 ft³/s (0.57 m³/s) Oct. 10, gage height, 2.20 ft (0.671 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	88	279	99	105	538	334	1050	66	151	144	48
2	67	76	299	97	1780	432	321	769	114	127	104	106
3	71	76	558	79	1120	366	268	552	286	120	77	245
4	71	76	414	71	626	306	242	388	720	91	114	2740
5	66	71	346	76	384	322	237	318	292	449	75	964
6	59	64	294	71	322	280	220	296	237	921	54	417
7	64	64	260	75	269	240	167	273	178	354	49	244
8	62	120	274	72	270	220	160	217	120	211	42	491
9	52	126	310	69	197	200	167	181	584	148	54	302
10	29	157	635	75	166	236	156	161	391	107	45	196
11	71	113	506	71	1010	263	130	192	277	81	42	142
12	54	113	426	55	921	258	1080	403	186	72	42	139
13	49	96	373	64	513	320	1260	296	136	75	41	111
14	46	92	289	70	442	330	1830	232	445	80	38	99
15	48	90	219	69	373	209	1860	522	250	61	57	134
16	44	88	250	67	398	342	1070	630	158	45	58	281
17	53	84	190	66	1080	361	751	506	256	53	35	394
18	61	92	164	65	1140	313	611	399	155	45	46	216
19	49	92	160	60	1090	294	446	322	126	43	37	162
20	42	62	80	66	2620	260	300	266	99	403	37	121
21	40	66	108	71	4070	246	220	220	108	478	44	100
22	50	82	86	74	1920	239	170	183	282	311	39	91
23	48	100	98	75	1570	298	250	152	203	160	36	80
24	45	702	96	66	1820	298	416	130	116	102	33	67
25	709	1110	75	62	1140	274	343	121	1060	73	37	60
26	920	579	64	58	796	254	285	112	1800	100	34	54
27	315	414	73	400	614	324	250	102	654	156	32	48
28	237	420	71	316	562	315	235	90	394	208	41	48
29	171	357	80	220	---	286	1330	75	264	945	37	43
30	126	294	103	162	---	313	1580	68	195	369	104	37
31	103	---	120	100	---	375	---	107	---	216	88	---
TOTAL	3884	5964	7300	3041	27318	9312	16689	9333	10152	6755	1716	8180
MEAN	125	199	235	98.1	976	300	556	301	338	218	55.4	273
MAX	920	1110	635	400	4070	538	1860	1050	1800	945	144	2740
MIN	29	62	64	55	105	200	130	68	66	43	32	37

CAL YR 1980 TOTAL 116054 MEAN 317 MAX 3320 MIN 29
WTR YR 1981 TOTAL 109644 MEAN 300 MAX 4070 MIN 29

03038000 CROOKED CREEK AT IDAHO, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 12...	1430	108	500	7.1	7.5	--	--	16	110	255
DEC 16...	0930	224	315	7.1	1.5	--	--	22	78	183
JAN 26...	1130	58	650	7.0	5.0	--	--	34	190	403
MAR 06...	1045	280	380	6.3	4.0	.9	45	52	100	236
APR 21...	1700	220	315	6.9	11.0	--	--	64	88	197
JUN 15...	1045	249	295	7.2	20.0	--	--	26	66	195
JUL 30...	1100	399	280	7.0	18.5	--	--	4	66	186
SEP 24...	1315	72	510	7.0	14.5	--	--	5	140	329

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 12...	.35	74.4	1900	1500	370	300	0	340	12	3.5
DEC 16...	.25	111	2300	800	1500	340	0	360	12	7.3
JAN 26...	.55	63.3	4900	1900	3000	600	10	590	13	2.0
MAR 06...	.32	178	1500	1200	300	330	20	310	14	11
APR 21...	.27	117	2800	1300	1500	280	0	290	15	8.9
JUN 15...	.27	131	1700	1700	40	300	40	260	28	19
JUL 30...	.25	200	2400	2300	70	280	40	240	43	46
SEP 24...	.45	64.3	1800	1700	60	500	30	470	7	1.4

03039000 CROOKED CREEK AT CROOKED CREEK DAM, PA

LOCATION.--Lat 40°43'13", long 79°30'42", Armstrong County, Hydrologic Unit 05010006, on right bank 0.4 mi (0.6 km) downstream from Crooked Creek Dam, 3.5 mi (5.6 km) south of Ford City, and 6.7 mi (10.8 km) upstream from mouth.

DRAINAGE AREA.--278 mi^2 (720 km^2).

PERIOD OF RECORD.--October 1909 to current year. Published as "at Hileman's Farm" 1910-29 and as "near Ford City" 1930-39. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1910-12, 1915-16, 1917 (M), 1918, 1922-27, 1928 (M), 1930 (M). WSP 1435: 1919-21, 1932-33, 1935.

GAGE.--Water-stage recorder. Datum of gage is 799.51 ft (243.691 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 1, 1933, nonrecording gage at site 2 mi (3 km) downstream at different datum. July 31, 1933, to Dec. 5, 1939, nonrecording gage at site 1.5 mi (2.4 km) downstream at different datum.

REMARKS.--Records good. Flow completely regulated since 1940 by Crooked Creek Lake 0.4 mi (0.6 km) upstream and since 1968 by Keystone Lake, combined capacity, 115,910 acre-ft (143 hm^3). Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--72 years, 424 ft^3/s (12.01 m^3/s), 20.71 in/yr (526 mm/yr), adjusted for storage from May 1940 to September 1968.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft^3/s (595 m^3/s) Mar. 18, 1936, gage height, 17.86 ft (5.444 m), from floodmark, site and datum then in use, from rating curve extended above 8,000 ft^3/s (230 m^3/s) on basis of contracted-opening measurement of peak flow; minimum observed, 0.1 ft^3/s (0.003 m^3/s) Sept. 8, 11, 20, 25, 26, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,430 ft^3/s (68.8 m^3/s) Feb. 24, gage height, 5.76 ft (1.756 m); minimum daily, 41 ft^3/s (1.16 m^3/s) Oct. 1-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	654	690	109	214	1650	446	935	133	614	606	78
2	41	430	682	109	226	1270	330	1130	133	598	187	150
3	41	108	682	109	542	1250	208	1100	137	402	187	309
4	41	51	678	109	746	1210	208	1070	430	196	187	538
5	41	51	670	109	746	1170	208	1040	650	42	187	940
6	41	51	662	109	742	1150	365	995	642	474	145	1570
7	41	51	650	109	734	1120	458	618	626	766	105	1880
8	41	51	506	109	722	1080	450	250	398	626	74	1760
9	41	82	414	109	714	1040	446	175	193	323	55	1320
10	41	113	426	109	698	815	442	178	410	105	55	770
11	42	164	570	107	694	610	434	178	730	105	55	338
12	42	191	658	105	718	598	554	327	800	105	55	178
13	42	214	654	109	718	442	698	406	518	105	55	178
14	42	214	646	109	718	193	742	402	187	155	55	178
15	42	211	494	109	710	193	1460	402	442	205	55	140
16	42	157	398	109	702	196	2040	522	394	205	55	101
17	42	113	295	107	714	202	1980	626	184	202	55	150
18	164	113	190	107	734	205	1900	618	295	152	55	306
19	210	113	190	107	754	208	1800	398	398	105	55	414
20	46	113	190	107	795	211	1340	193	292	109	55	278
21	45	113	150	105	860	211	682	193	178	369	54	187
22	45	113	109	105	1190	211	383	193	181	646	54	187
23	46	113	109	105	1490	214	383	193	184	634	54	187
24	46	184	109	105	2010	334	386	193	299	622	54	184
25	50	550	109	105	2390	454	390	193	418	369	54	133
26	133	710	109	58	2340	450	390	150	762	105	50	76
27	349	706	109	60	2280	450	285	83	1500	107	55	57
28	590	706	109	61	2220	450	184	58	1810	107	55	58
29	702	710	109	124	---	446	196	60	1190	446	55	58
30	690	706	109	214	---	446	526	95	630	845	55	58
31	670	---	109	214	---	446	---	133	---	1010	55	---
TOTAL	4490	7856	11585	3422	28121	18925	20314	13107	15144	10854	2933	12761
MEAN	145	262	374	110	1004	610	677	423	505	350	94.6	425
MAX	702	710	690	214	2390	1650	2040	1130	1810	1010	606	1880
MIN	41	51	109	58	214	193	184	58	133	42	50	57

CAL YR 1980 TOTAL 155014 MEAN 424 MAX 2010 MIN 16
WTR YR 1981 TOTAL 149512 MEAN 410 MAX 2390 MIN 41

03040000 STONYCREEK RIVER AT FERNDALE, PA

LOCATION.--Lat 40°17'08", long 78°55'15", Cambria County, Hydrologic Unit 05010007, on right bank 50 ft (15 m) upstream from highway bridge at Ferndale, 0.4 mi (0.6 km) downstream from Bens Creek, 1.2 mi (1.9 km) upstream from Johnstown city limits, and 5.2 mi (8.4 km) upstream from confluence with Little Conemaugh River.

DRAINAGE AREA.--451 mi^2 (1,168 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to March 1936, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305. Monthly figures adjusted for storage and diversion for October 1918 to September 1921, published in WSP 503, 523, have been found in error and should not be used. Published as "at Johnstown," 1914-36, and as "Stony Creek at Ferndale",1938-79. Gage-height records collected in this vicinity since 1885 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1915, 1918, 1923-26. WSP 1435: 1920-21, 1932, 1941 (M), 1943 (M), 1945-46 (M). WDR PA-78-3: 1977 (M). See also PERIOD OF RECORD.

GAGE --Water-stage recorder. Datum of gage is 1,184.06 ft (360.901 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 19, 1936, nonrecording gage at site 3.5 mi (5.6 km) downstream at different datum. Dec. 8, 1938, to Jan. 30, 1940, nonrecording gage at site 50 ft (15 m) downstream at present datum.

REMARKS.--Records good except those for winter periods, which are fair. Regulation by mine pumpage and reservoirs and diversion above station; the four largest reservoirs have a combined capacity of 42,360 acre-ft (52.2 hm^3). Figures of daily discharge do not include diversion from Stonycreek River and Quemahoning Creek Reservoir to plants of Bethlehem Steel Co., and from Mill Creek, Dalton Run, and North Fork Bens Creek Reservoirs for water supply of city of Johnstown. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years (1938-81), 781 ft^3/s (22.12 m^3/s), 23.52 in/yr (597 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,000 ft^3/s (1,670 m^3/s) Mar. 18, 1936, gage height, 30.26 ft (9.233 m), from high-water mark, site and datum then in use, from rating curve extended above 13,000 ft^3/s (370 m^3/s) on the basis of slope-area and contracted-opening measurements of peak flow; minimum observed, 5 ft^3/s (0.14 m^3/s) Sept. 8, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,700 ft^3/s (360 m^3/s) Apr. 13, gage height, 10.24 ft (3.121 m); minimum, 57 ft^3/s (1.61 m^3/s) Aug. 30, gage height, 2.16 ft (0.658 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	106	338	160	220	1580	1300	732	455	225	130	400
2	77	102	447	130	440	1390	1150	684	377	251	116	500
3	80	98	622	100	964	1140	844	592	473	455	106	1010
4	87	95	470	140	620	965	748	532	1900	318	130	760
5	87	93	413	260	496	957	668	484	1500	265	138	640
6	80	87	380	340	380	880	620	454	700	242	110	450
7	77	91	369	250	330	686	544	454	580	211	107	290
8	76	116	369	210	310	673	490	408	800	185	104	260
9	74	123	476	200	290	600	466	370	500	168	96	270
10	72	147	771	190	280	613	508	335	1300	163	89	230
11	80	150	593	180	540	641	599	454	1000	147	85	171
12	79	111	482	180	1390	640	6720	1050	760	136	84	144
13	74	100	464	170	844	818	10100	789	720	134	82	128
14	76	96	413	150	652	1160	6320	557	1820	139	81	118
15	70	93	333	140	557	966	4540	1320	1480	132	81	121
16	73	95	348	120	571	1270	2610	1120	1040	120	91	241
17	72	95	308	115	972	1390	1980	869	818	113	86	272
18	80	218	260	100	1480	1060	1770	699	617	110	78	205
19	84	214	230	90	1750	922	1470	591	501	107	72	158
20	80	150	200	88	3940	797	1240	518	446	149	69	139
21	77	141	150	86	6540	749	980	443	418	220	67	126
22	74	144	190	84	4460	665	780	380	446	160	67	122
23	73	131	250	82	3400	731	820	333	395	124	66	121
24	72	706	180	80	3440	1150	1160	303	328	113	66	128
25	659	1340	170	100	2360	943	1330	284	424	117	65	112
26	794	764	250	120	1790	949	1200	266	546	150	62	95
27	229	494	350	170	1400	1280	1010	502	361	330	63	91
28	182	430	450	280	1270	1440	884	377	286	253	61	88
29	153	397	310	230	---	1290	804	592	249	337	60	80
30	133	353	240	170	---	1270	820	487	226	235	79	75
31	116	---	180	140	---	1500	---	583	---	159	410	---
TOTAL	4113	7280	11006	4855	41686	31115	54475	17561	21466	5968	3001	7545
MEAN	133	243	355	157	1489	1004	1816	566	716	193	96.8	252
MAX	794	1340	771	340	6540	1580	10100	1320	1900	455	410	1010
MIN	70	87	150	80	220	600	466	266	226	107	60	75
†	+47.3	+98.5	+118	+61.4	+258	+101	+101	+96.2	+97.5	+64.7	+35.4	+72.4

CAL YR 1980 TOTAL 236192 MEAN 645 MAX 5660 MIN 70 ADJ +82.9
WTR YR 1981 TOTAL 210071 MEAN 576 MAX 10100 MIN 60 ADJ +94.3

† Diversion from and change in contents in Quemahoning Creek, North Fork Bens Creek, Dalton Run, and Mill Creek Reservoirs and diversion from Stoneycreek River, equivalent in cubic feet per second. Records of diversion and reservoir contents furnished by Manufacturers Water Co. and Greater Johnstown Water Authority.

03040000 STONYCREEK RIVER AT FERNDALE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT										
01...	1500	74	870	3.6	18.5	1.4	70	--	410	602
27...	1300	236	--	4.4	7.5	.7	35	--	--	--
DEC										
10...	1530	828	320	5.1	4.5	.3	15	2	120	194
JAN										
19...	1545	129	650	4.3	1.5	.8	40	--	290	451
MAR										
02...	1530	1320	230	4.2	5.0	.5	25	--	98	179
APR										
23...	1330	919	410	4.2	13.0	3.3	164	--	170	280
JUN										
08...	1445	543	340	4.1	20.0	.4	20	--	120	223
AUG										
03...	1200	114	800	3.4	20.0	.8	40	--	380	551
SEP										
22...	1300	125	695	4.8	14.5	.9	45	--	310	479

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT										
01...	.82	120	2600	0	2700	3000	0	3100	11	2.2
27...	--	--	--	--	--	--	--	--	406	259
DEC										
10...	.26	434	3100	1800	1300	1100	0	1200	46	103
JAN										
19...	.61	157	11000	9000	2000	2200	0	2300	68	24
MAR										
02...	.24	638	3100	1300	1800	820	0	910	22	78
APR										
23...	.38	695	3500	1300	2200	1600	0	1600	15	37
JUN										
08...	.30	327	2400	1300	1100	1100	0	1100	12	18
AUG										
03...	.75	170	1300	200	1100	280	0	30000	6	1.8
SEP										
22...	.65	162	2600	1200	1400	2500	0	2500	8	2.7

03041000 LITTLE CONEMAUGH RIVER AT EAST CONEMAUGH, PA

LOCATION.--Lat 40°20'37", long 78°53'07", Cambria County, Hydrologic Unit 05010007, on right bank 100 ft (30 m) downstream from bridge on State Highway 271 at East Conemaugh, 0.3 mi (0.5 km) downstream from Clapboard Run, and 2.5 mi (4.0 km) upstream from confluence with Stonycreek River.

DRAINAGE AREA.--183 mi² (474 km²).

PERIOD OF RECORD.--April 1939 to current year.

REVISED RECORDS.--WSP 1305: 1939-50 (adjusted monthly runoff). WDR PA-78-3: 1977 (M).

GAGE.--Nonrecording gage Oct. 1, 1979, to Dec. 13, 1979, water-stage recorder thereafter. Datum of gage is 1209.29 ft (368.592 m) National Geodetic Vertical Datum of 1929. Prior to February 1, 1940, and July 21, 1977, to December 13, 1980, nonrecording gage at site 100 ft (30 m) upstream at datum 1.0 ft (0.304 m) lower; February 2, 1940, to July 20, 1977, water-stage recorder at same site and at datum 1.0 ft (0.304 m) lower.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by reservoirs and diversion above station; the two most effective reserviors have a combined capacity of 5,640 acre-ft (6.95 hm³). Figures of daily discharge do not include diversion at South Fork intake to Cambria plant of Bethlehem Steel Co. , from Saltlick Run Reservior to city of Johnstown, and from Wilmore Reservior, capacity, 3,145 acre-ft (3.88 hm³) to Franklin plant of Bethlehem Steel Co. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 333 ft³/s (9.431 m³/s), 24.71 in/yr (628 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft³/s (1,130 m³/s) July 20, 1977, gage height, 18.85 ft (5.745 m) from highwater mark, from rating curve extended above 5,200 ft³/s (150 m³/s) on basis of slope-area measurements at peak flow and at gage height 8.86 ft (2.701 m); minimum, 3.4 ft³/s (0.096 m³/s) Sept. 28, Oct. 8, 9, 11, 1963, gage height, 1.08 ft (0.329 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 17, 18, 1936, reached a discharge of 28,800 ft³/s (816 m³/s) by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,500 ft³/s (156 m³/s) June 14, gage height, 5.50 ft (1.676 m), minimum daily, 59 ft³/s (1.67 m³/s) Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	112	229	90	100	714	563	366	140	167	187	167
2	80	108	274	86	200	627	625	334	138	170	156	164
3	76	106	405	84	333	513	501	290	245	214	139	370
4	85	108	280	80	257	423	448	266	386	167	133	334
5	76	106	271	86	208	441	418	249	249	153	125	259
6	72	104	256	150	165	393	385	245	208	156	114	178
7	71	104	250	140	155	275	333	232	238	140	109	138
8	71	110	256	120	140	254	253	208	192	125	102	140
9	74	123	284	115	135	240	247	193	298	121	98	153
10	74	160	508	105	130	244	247	181	366	116	94	118
11	71	127	370	100	230	241	235	278	374	107	94	100
12	69	119	324	98	697	233	1700	480	263	102	94	92
13	62	114	308	96	320	291	2040	338	229	102	94	90
14	59	112	277	92	260	355	1830	298	2060	109	96	86
15	62	110	235	90	230	294	1480	394	1010	100	96	96
16	69	110	241	88	220	484	1020	366	604	96	123	172
17	74	108	223	86	350	436	832	310	526	94	100	130
18	81	127	190	86	620	351	700	274	394	92	92	100
19	85	125	140	84	1060	322	532	252	326	90	88	90
20	79	114	110	84	2930	296	466	235	278	172	88	88
21	79	114	105	84	3950	282	402	211	252	226	86	84
22	78	112	120	82	1880	253	362	193	322	128	80	86
23	78	114	130	82	1850	287	375	178	274	109	76	84
24	78	400	115	82	1670	328	470	164	211	100	76	78
25	340	658	105	80	1130	308	458	156	306	98	78	76
26	356	352	94	94	832	310	382	153	604	298	76	75
27	169	277	120	140	649	489	362	159	306	616	76	73
28	139	277	110	125	662	498	342	145	235	358	73	71
29	125	256	105	110	---	486	414	184	205	700	71	69
30	119	235	98	92	---	579	426	172	181	362	92	69
31	119	---	94	90	---	627	---	161	---	238	214	---
TOTAL	3160	5102	6627	3021	21363	11874	18848	7665	11420	5826	3220	3830
MEAN	102	170	214	97.5	763	383	628	247	381	188	104	128
MAX	356	658	508	150	3950	714	2040	480	2060	700	214	370
MIN	59	104	94	80	100	233	235	145	138	90	71	69
†	+12.9	+18.6	+14.8	+13.0	+17.4	+13.7	+14.8	+14.5	+15.2	+14.6	+12.9	+16.3

CAL YR 1980 TOTAL 118688 MEAN 324 MAX 2670 MIN 59 ADJ +15.5
WTR YR 1981 TOTAL 101956 MEAN 279 MAX 3950 MIN 59 ADJ +14.9

† Diversion from and change in contents in Wilmore and Saltlick Run Reservoir, and diversion from South Fork intake, equivalent in cubic feet per second. Records of diversion and reservoir contents furnished by Manufacturers Water Co. and Greater Johnstown Water Authority.

03041500 CONEMAUGH RIVER AT SEWARD, PA

LOCATION.--Lat 40°25'09", long 79°01'35", Westmoreland County, Hydrologic Unit 05010007, on left bank at upstream side of bridge on State Highway 56 at Seward, 2.0 mi (3.2 km) downstream from Findley Run, and 9 mi (14 km) northwest of Johnstown.

DRAINAGE AREA.--715 mi² (1,852 km²).

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WDR PA-78-3: 1936 (M), 1977 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,076.01 ft (327.968 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by steel mills and by reserviors above station,the eight most effective reservoirs have a combined capacity of 51,850 acre-ft (63.9 hm³). Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--43 years, 1,290 ft³/s (36.53 m³/s), 24.50 in/yr (622 mm/yr), adjusted for storage 1938-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 115,000 ft³/s (3,260 m³/s), July 20, 1977, gage height, 27.06 ft (8.248 m) from highwater mark, from slope-area measurement at peak flow; minimum not determined; minimum daily, 105 ft³/s (2.97 m³/s) Dec. 28, 29, 31, 1938.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 26.4 ft (8.05 m) from floodmarks, discharge, 75,000 ft³/s (2,120 m³/s) by contracted-opening measurement at site 6.7 mi (10.8 km) downstream, adjusted for inflow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,500 ft³/s (439 m³/s) Apr. 13, gage height, 10.02 ft (3.054 m); minimum daily, 230 ft³/s (6.51 m³/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	283	344	815	310	544	2680	1930	1510	820	600	590	904
2	290	328	1020	290	2340	2360	2010	1410	699	614	510	1070
3	298	313	1400	270	1830	1990	1700	1240	991	919	460	2190
4	298	313	1110	340	1260	1690	1520	1120	1610	725	500	1830
5	298	305	1000	520	932	1680	1420	1030	2160	648	454	1450
6	283	298	880	760	740	1560	1340	984	1580	606	398	969
7	275	298	820	640	660	1350	1180	965	1340	545	377	683
8	275	360	800	600	600	1210	1070	845	1060	494	366	634
9	268	392	900	540	580	1120	1010	764	1350	459	341	675
10	262	469	1770	500	560	1130	1080	719	1730	437	329	576
11	275	433	1350	470	2120	1160	1030	1120	1960	413	332	468
12	275	368	1000	450	2630	1140	8830	1870	1440	396	331	411
13	262	344	980	420	1640	1350	12500	1540	1370	391	319	386
14	268	328	860	400	1340	1860	8460	1260	4240	404	315	370
15	256	328	700	380	1150	1610	6510	2010	3120	385	310	418
16	256	320	740	368	1140	2100	4250	2120	2170	355	360	611
17	256	328	640	368	1790	2260	3390	1700	1820	346	320	657
18	290	518	560	368	2790	1830	2970	1430	1400	336	294	499
19	283	518	520	344	3430	1660	2470	1240	1140	328	279	417
20	268	433	488	344	7530	1460	2120	1110	1000	537	271	382
21	262	408	538	347	11700	1380	1810	959	939	625	260	360
22	256	408	548	355	6920	1230	1580	834	1100	463	249	363
23	250	392	518	355	5670	1320	1630	741	987	377	245	355
24	250	1490	569	344	5730	1560	2050	679	778	348	244	357
25	1300	2610	479	327	4160	1590	2230	635	1080	348	246	344
26	1780	1630	559	380	3250	1590	1970	626	1810	924	237	307
27	750	1200	569	661	2610	2070	1750	840	1100	1620	235	295
28	528	1090	479	698	2330	2360	1600	748	832	1170	233	288
29	450	1000	420	618	---	2140	1670	951	705	1770	230	282
30	400	871	370	467	---	2170	1720	911	631	1200	310	273
31	368	---	340	409	---	2200	---	938	---	788	963	---
TOTAL	12113	18437	23742	13643	77976	52810	84800	34849	42962	19571	10908	18824
MEAN	391	615	766	440	2785	1704	2827	1124	1432	631	352	627
MAX	1780	2610	1770	760	11700	2680	12500	2120	4240	1770	963	2190
MIN	250	298	340	270	544	1120	1010	626	631	328	230	273

CAL YR 1980 TOTAL 467687 MEAN 1278 MAX 8860 MIN 250
WTR YR 1981 TOTAL 410635 MEAN 1125 MAX 12500 MIN 230

03042000 BLACKLICK CREEK AT JOSEPHINE, PA

LOCATION.--Lat 40°28'24", long 79°11'01", Indiana County, Hydrologic Unit 05010007, on right bank on upstream side of old concrete dam at Josephine, 0.9 mi (1.4 km) upstream from Two Lick Creek, and 5 mi (8 km) northeast of Blairsville.

DRAINAGE AREA.--192 mi^2 (497 km^2).

PERIOD OF RECORD.--January 1952 to current year.

REVISED RECORDS.--WSP 1385: 1952-54 (M). WDR PA-78-3: 1977 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 975.82 ft (297.431 m) National Geodetic Vertical Datum of 1912. Prior to Aug. 25, 1953, nonrecording gage at same site and datum.

REMARKS.--Records fair. Some regulation at low flow by mine pumpage above station. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--29 years, 372 ft^3/s (10.54 m^3/s), 26.31 in/yr (668 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,700 ft^3/s (1,290 m^3/s) July 20, 1977, gage height, 19.89 ft (6.062 m) from highwater mark in gage well, from rating curve extended above 16,000 ft^3/s (453 m^3/s) on basis of contracted opening measurement at gage height, 11.35 ft (3.459 m) in gage well, 12.67 ft (3.862 m) from outside floodmark and slope-area measurement at gage height 10.93 ft (3.331 m); minimum, 19 ft^3/s (0.54 m^3/s) Sept. 14, 1952, Nov. 4, 1953; minimum gage height, 3.15 ft (0.960 m) Oct. 15, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,700 ft^3/s (76.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 2	0800	ice jam		*8.67	2.643	Feb. 21	0630	*7840	222	8.27	2.521

Minimum daily discharge, 61 ft^3/s (1.73 m^3/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	205	332	150	170	711	521	319	139	170	206	270
2	129	195	409	130	300	531	470	277	135	150	184	206
3	129	178	601	150	910	448	374	250	179	140	151	270
4	147	178	429	170	593	381	338	230	388	160	139	388
5	129	178	381	190	447	403	333	225	215	200	135	277
6	111	166	348	330	389	373	320	225	188	255	126	220
7	108	158	317	500	390	324	271	225	197	190	120	211
8	117	200	324	660	384	289	259	220	175	130	114	211
9	111	252	373	700	261	267	258	215	240	130	108	235
10	105	373	757	470	255	270	254	206	320	120	97	211
11	108	252	502	360	826	280	263	211	270	115	90	197
12	105	215	419	280	1040	270	1720	916	188	110	90	179
13	99	205	390	230	582	311	2010	438	179	123	95	163
14	96	200	356	200	531	360	1690	340	902	120	87	151
15	96	200	282	170	472	317	1360	1390	465	114	82	143
16	90	195	301	150	457	530	860	902	284	105	108	139
17	93	186	220	140	991	566	634	570	447	100	129	135
18	105	215	230	125	1670	422	520	412	284	95	117	129
19	120	210	190	120	1660	395	396	340	220	92	105	120
20	93	195	160	115	3750	366	340	291	197	100	95	111
21	96	200	220	115	5990	326	284	250	193	260	87	105
22	93	195	170	115	2600	294	260	215	220	202	78	97
23	85	200	320	110	2230	339	284	202	265	179	72	95
24	76	757	230	110	2180	463	348	193	197	147	67	85
25	818	1250	160	105	1420	388	312	188	600	126	65	76
26	1110	673	180	150	963	369	265	184	1330	163	63	76
27	381	491	210	400	715	591	250	175	456	326	63	78
28	288	459	260	230	657	616	270	167	305	225	63	72
29	252	409	200	120	---	514	326	167	235	580	63	67
30	230	348	220	120	---	523	388	171	200	380	61	72
31	215	---	190	120	---	621	---	155	---	230	132	---
TOTAL	5867	9138	9681	7035	32833	12858	16178	10269	9613	5537	3192	4789
MEAN	189	305	312	227	1173	415	539	331	320	179	103	160
MAX	1110	1250	757	700	5990	711	2010	1390	1330	580	206	388
MIN	76	158	160	105	170	267	250	155	135	92	61	67
CFSM	.98	1.59	1.63	1.18	6.11	2.16	2.81	1.72	1.67	.93	.54	.83
IN.	1.14	1.77	1.88	1.36	6.36	2.49	3.13	1.99	1.86	1.07	.62	.93

CAL YR 1980 TOTAL 162189 MEAN 443 MAX 4340 MIN 76 CFSM 2.31 IN 31.42
WTR YR 1981 TOTAL 126990 MEAN 348 MAX 5990 MIN 61 CFSM 1.81 IN 24.60

LAKES IN KISKIMINETAS RIVER BASIN

03042260 YELLOW CREEK LAKE.--Lat 40°35'27", long 79°03'11", Indiana County, Hydrologic Unit 05010007, in gatehouse at right end of Yellow Creek, at Yellow Creek State Park, 3 mi (5 km) southwest of Penn Run. DRAINAGE AREA, 52.5 mi² (136.0 km²). PERIOD OF RECORD, July 1971 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (Pennsylvania Department of Environmental Resources bench mark).

Lake is formed by an earthfill dam with concrete spillway. Storage began July 11, 1971. Usable capacity, 13,800 acre-ft (17.0 hm³) between elevation 1,245.5 ft or 379.63 m (sill of 4-foot or 1.2 m and 1.5 foot or 0.46 m outlet gates) and 1,280.00 ft or 390.14 m (spillway crest). No dead storage. Figures given herein represent usable contents. Lake is used for recreation. Dam built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 18,470 acre-ft (22.7 hm³) June 23, 1972 (elevation, 1,285.02 ft or 391.674 m); minimum (after first filling), 2,810 acre-ft (3.46 hm³) Apr. 14, 1975 (elevation, 1,261.47 ft or 384.496 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 16,050 acre-ft (19.8 hm³) Feb. 21 (elevation, 1,282.50 ft or 390.906 m); minimum not determined.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
03042260 Yellow Creek Lake			
Sept. 30	--	--	--
Oct. 31	1279.69	13520	--
Nov. 30	1279.75	13580	+ 1.0
Dec. 31	1279.48	13330	- 4.1
CAL YR 1980	--	--	- 0.6
Jan. 31	1279.63	13470	+ 2.3
Feb. 28	1279.85	13660	+ 3.4
Mar. 31	1280.16	13940	+ 4.6
Apr. 30	1280.00	13800	- 2.4
May 31	1279.42	13280	- 8.5
June 30	1278.73	12680	- 10.1
July 31	1279.32	13190	+ 8.3
Aug. 31	1279.52	13370	+ 2.9
Sept. 30	1279.11	13000	- 6.2
WTR YR 1981	--	--	- 0.7

03042280 YELLOW CREEK NEAR HOMER CITY, PA

LOCATION.--Lat 40°34'18", long 79°06'13", Indiana County, Hydrologic Unit 05010007, on left bank 0.3 mi (0.5 km) upstream from Central Indiana County Water Authority dam, 0.4 mi (0.6 km) upstream from Ferrier Run, which has been diverted, and 3.5 mi (5.6 km) northeast of Homer City.

DRAINAGE AREA.--57.4 mi^2 (148.7 km^2), excludes that of Ferrier Run.

PERIOD OF RECORD.--October 1967 to current year.

REVISED RECORDS.--WDR PA-76-3: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,140 ft (347 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1971 by Yellow Creek Lake (station 03042260) 4.2 mi (6.8 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years, 110 ft^3/s (3.115 m^3/s), 26.02 in/yr (661 mm/yr), adjusted for storage beginning June 1971.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s (425 m^3/s) July 20, 1977, gage height 12.60 ft (3.840 m), from rating curve extended above 810 ft^3/s (23 m^3/s) on basis of computation of peak flow over dam and flow over dam measurement at gage height 7.46 ft (2.274 m); minimum, 1.4 ft^3/s (0.040 m^3/s) July 19, 1969, gage height, 1.99 ft (0.607 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,820 ft^3/s (51.5 m^3/s) Feb. 21, gage height, 5.58 ft (1.701 m); minimum daily, 9.5 ft^3/s (0.27 m^3/s) Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	68	81	34	64	161	149	135	36	47	22	15
2	14	58	90	35	150	130	146	125	35	37	22	16
3	14	50	120	34	336	109	132	113	72	38	22	21
4	14	45	146	33	288	111	120	101	137	37	22	40
5	13	41	135	50	222	115	111	91	111	38	21	45
6	13	36	109	66	173	115	105	83	101	171	20	41
7	12	33	102	38	152	107	93	75	87	251	19	36
8	12	37	118	54	140	97	81	67	72	75	18	40
9	11	51	130	38	122	89	73	58	201	10	17	48
10	11	78	167	35	107	85	69	54	284	10	16	38
11	11	81	170	33	173	85	77	66	143	10	15	34
12	10	76	158	30	276	83	276	87	22	11	16	33
13	9.9	71	144	29	244	87	444	81	18	11	15	32
14	9.9	65	128	28	215	95	440	83	155	11	15	28
15	9.9	61	113	26	187	97	376	212	113	11	15	27
16	9.5	55	74	25	167	127	320	272	32	11	17	26
17	9.5	52	43	24	260	149	229	248	132	11	17	25
18	10	58	45	24	416	219	130	328	109	11	16	22
19	10	54	47	24	504	248	127	328	59	11	15	19
20	10	49	55	23	958	152	117	140	33	62	14	17
21	11	45	66	23	1680	56	105	30	33	205	13	16
22	11	43	80	23	1030	63	97	36	89	166	12	16
23	11	43	40	23	664	75	97	40	97	63	11	15
24	11	149	30	23	628	93	103	41	33	59	11	14
25	43	316	45	23	496	103	101	41	198	14	11	13
26	130	242	66	25	396	107	91	40	385	13	11	13
27	130	123	37	30	264	143	85	39	327	13	11	12
28	120	179	29	44	149	149	79	37	193	14	11	11
29	104	125	30	56	---	149	113	36	48	21	11	11
30	90	73	31	52	---	149	137	36	34	19	13	10
31	80	---	32	46	---	152	---	36	---	21	13	---
TOTAL	968.7	2457	2661	1051	10461	3700	4623	3159	3389	1482	482	734
MEAN	31.2	81.9	85.8	33.9	374	119	154	102	113	47.8	15.5	24.5
MAX	130	316	170	66	1680	248	444	328	385	251	22	48
MIN	9.5	33	29	23	64	56	69	30	18	10	11	10
MEAN†	*---	82.9	81.7	36.2	377	124	152	93.5	103	56.1	18.4	18.3
CFSM†	*---	1.44	1.42	.63	6.57	2.16	2.65	1.63	1.79	.98	.32	.32
IN.†	*---	1.61	1.64	.73	6.84	2.49	2.96	1.88	2.00	1.13	.37	.36

CAL YR 1980 TOTAL 34785.7 MEAN 95.0 MAX 660 MIN 9.5 MEAN† 94.4 CFSM† 1.64 IN.† *---
WTR YR 1981 TOTAL 35167.7 MEAN 96.3 MAX 1680 MIN 9.5 MEAN† 95.6 CFSM† 1.67 IN.† *---

† Adjusted for change in contents in Yellow Creek Lake.
* No adjustment figures available.

03042500 TWO LICK CREEK AT GRACETON, PA

LOCATION.--Lat 40°31'02", long 79°10'19", Indiana County, Hydrologic Unit 05010007, on right bank 0.8 mi (1.3 km) upstream from highway bridge on road leading west from Graceton, 1.1 mi (1.8 km) downstream from Tearing Run, 1.5 mi (2.4 km) upstream from Cherry Run, and 8 mi (13 km) northeast of Blairsville.

DRAINAGE AREA.--171 mi^2 (443 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 981.63 ft (299.201 m) National Geodetic Vertical Datum of 1929.

REVISED RECORDS.--WDR PA-78-3: 1977 (M).

REMARKS.--Records good except those for winter period, which are fair. Diurnal fluctuation caused by mine pumpage and by sewage-disposal plant above station. Flow regulated since December 1968 by Two Lick Creek Reservoir 10 mi (16 km) upstream, capacity, 16,240 acre-ft (20.0 hm^3) and since July 1971 by Yellow Creek Lake (station 03042260) 11 mi (18 km) upstream. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--30 years, 285 ft^3/s (8.071 m^3/s), 22.63 in/yr (575 mm/yr), adjusted for storage since December 1968.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 ft^3/s (906 m^3/s) July 20, 1977, gage height, 18.65 ft (5.685 m) backwater, from highwater mark, from rating curve extended above 4,500 ft^3/s (130 m^3/s) on basis of slope-area measurement of peak flow and contracted-opening measurement at gage height 12.71 ft (3.874 m) at site 1.6 mi (2.6 km) above gage, adjusted to gage site; minimum, 2.0 ft^3/s (0.056 m^3/s) Sept. 14, 15, 1952, gage height, 1.27 ft (0.387 m); minimum daily, 8.7 ft^3/s (0.25 m^3/s) Sept. 14, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,580 ft^3/s (130 m^3/s) Feb. 21, gage height, 8.65 ft (2.637 m); minimum, 60 ft^3/s (1.70 m^3/s) Oct. 24, gage height, 2.01 ft (0.613 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	137	210	110	483	520	306	330	162	219	153	112
2	106	129	238	105	414	358	298	400	165	195	147	107
3	105	120	270	120	344	284	284	295	319	192	142	150
4	103	116	280	150	299	312	270	274	319	183	137	408
5	99	112	270	190	260	492	260	260	298	222	135	309
6	97	108	228	240	262	288	250	253	302	333	130	183
7	97	103	220	310	233	270	236	232	242	424	127	153
8	96	116	242	500	206	253	222	219	216	242	125	225
9	92	145	304	651	422	242	213	204	504	140	120	189
10	90	142	347	500	453	239	201	204	480	135	117	155
11	94	137	318	310	410	242	320	291	365	130	117	140
12	88	135	311	230	357	239	870	284	177	127	120	174
13	87	127	290	200	422	239	968	260	162	137	115	160
14	83	127	269	170	319	239	944	305	516	137	112	135
15	83	122	244	140	326	250	845	620	358	122	125	132
16	81	120	217	130	346	337	760	735	219	120	140	122
17	79	118	165	120	680	468	676	556	358	117	117	125
18	81	127	170	110	845	334	508	536	281	112	110	110
19	76	120	140	105	1230	393	306	592	222	112	107	102
20	74	116	120	100	1890	340	152	351	180	344	102	97
21	73	114	140	99	3990	210	320	195	180	408	100	90
22	68	112	165	98	2370	219	260	195	277	337	95	90
23	66	116	147	96	1450	242	274	192	267	201	95	86
24	61	426	130	94	1580	250	274	192	171	189	92	84
25	329	530	120	95	1320	260	256	189	556	140	90	80
26	273	406	160	120	938	267	242	186	1050	253	88	78
27	227	273	190	162	730	326	232	177	644	219	86	76
28	210	340	135	158	540	309	232	168	472	192	84	72
29	187	283	115	125	---	309	372	165	235	288	82	68
30	162	207	135	105	---	309	344	165	204	183	137	68
31	150	---	120	100	---	312	---	174	---	162	132	---
TOTAL	3622	5284	6410	5743	23119	9352	1169	9199	9901	6315	3579	4080
MEAN	117	176	207	185	826	302	390	297	330	204	115	136
MAX	329	530	347	651	3990	520	968	735	1050	424	153	408
MIN	61	103	115	94	206	210	152	165	162	112	82	68
†	*---	+23.2	+5.0	-31.5	+83.3	-2.7	+28.7	-25.6	+8.4	-17.7	-4.4	-88.0
MEAN‡	*---	199	212	154	909	299	419	271	338	186	111	48.0
CFSM‡	*---	1.16	1.24	.90	5.32	1.75	2.45	1.58	1.98	1.09	.65	.28
IN.‡	*---	1.29	1.43	1.04	5.54	2.02	2.73	1.82	2.21	1.26	.75	.31

CAL YR 1980 TOTAL 101982 MEAN 279 MAX 2200 MIN 61 ADJ -4.4 MEAN‡ 275 CFSM‡ 1.61 IN.‡ *---
WTR YR 1981 TOTAL 98299 MEAN 269 MAX 3990 MIN 61 ADJ -4.4 MEAN‡ 265 CFSM‡ 1.55 IN.‡ *---

† Change in contents, equivalent in cubic feet per second, in Two Lick reservoir and Yellow Creek Lake. Records of contents in Two Lick Creek Reservoir furnished by Pennsylvania Electric Co.

‡ Adjusted for change in reservoir contents.

* No adjustment figures available.

03042500 TWO LICK CREEK AT GRACETON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT										
01...	1530	108	520	4.5	19.5	1.1	55	--	200	320
29...	1600	194	--	4.9	9.0	.7	35	<2	140	249
DEC										
09...	0930	251	353	5.4	5.5	.6	30	4	120	217
JAN										
21...	1530	104	515	4.7	3.5	.9	45	2	190	313
MAR										
04...	1645	265	380	3.9	4.0	.9	45	--	120	209
APR										
22...	1230	251	490	4.5	14.0	3.7	184	--	130	245
JUN										
10...	0910	489	295	6.0	17.0	--	--	4	84	192
JUL										
30...	1600	200	380	3.7	17.0	.5	25	--	150	334
SEP										
23...	0915	81	540	4.1	12.0	.8	40	--	190	346

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT										
01...	.44	93.3	8800	400	8400	1500	0	1600	18	5.2
29...	.34	130	11000	2300	8700	80	0	970	28	15
DEC										
09...	.30	147	6800	800	6000	760	10	750	18	12
JAN										
21...	.43	87.9	14000	1000	13000	1100	0	1200	19	5.3
MAR										
04...	.28	150	8900	1100	7800	710	0	750	20	14
APR										
22...	.33	166	7300	500	6800	800	10	790	26	18
JUN										
10...	.26	253	6500	3500	3000	590	50	540	31	41
JUL										
30...	.45	180	4500	900	3600	1200	0	1200	6	3.2
SEP										
23...	.47	75.8	9800	1600	8200	1500	100	1400	17	3.7

03044000 CONEMAUGH RIVER AT TUNNELTON, PA

LOCATION.--Lat 40°27'16", long 79°23'28", Indiana County, Hydrologic Unit 05010007, on right bank at downstream side of highway bridge at Tunnelton, 0.9 mi (1.4 km) downstream from Boatyard Run, 2.0 mi (3.2 km) downstream from Conemaugh River Dam, 3.8 mi (6.1 km) southeast of Saltsburg, and 5.5 mi (8.8 km) upstream from confluence with Loyalhanna Creek.

DRAINAGE AREA.--1,358 mi^2 (3,517 km^2).

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 844.64 ft (257.446 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1952, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1971 by Yellow Creek Lake (station 03042260) since 1952 by Conemaugh River Lake 2 mi (3 km) upstream and by reservoirs above station, the nine most effective of which have a combined capacity of 68,090 acre-ft (84.0 hm^3/s). Evaporation from operation of Homer City and Conemaugh generating station, which began during 1969 and 1970 respectively, can amount to as much as 45 ft^3/s (1.3 m^3/s). Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--42 years, 2,396 ft^3/s (67.85 m^3/s), 23.96 in/yr (609 mm/yr), adjusted for storage 1952-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,200 ft^3/s (1,680 m^3/s) Mar. 7, 1945, gage height, 21.0 ft (6.40 m) from graph based on gage readings; minimum, 1 ft^3/s (0.028 m^3/s) Sept. 10, 1954, gage height, 1.20 ft (0.366 m); minimum daily, 1 ft^3/s (0.028 m^3/s) Sept. 10, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,600 ft^3/s (527 m^3/s) Feb. 25, gage height, 10.47 ft (3.191 m); minimum daily, 380 ft^3/s (10.8 m^3/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	586	895	1810	876	1190	10500	3550	2970	1320	1320	3880	834
2	575	882	1830	876	860	8930	2750	2910	1320	1310	2390	1030
3	565	869	2320	872	1420	8500	2830	2800	1320	1300	1150	1360
4	565	856	2810	876	2360	6720	2780	2150	1710	1330	799	2960
5	565	843	2710	880	2370	5060	2660	1820	3070	1340	829	4130
6	555	596	2150	880	2350	4810	2200	1830	3350	1360	842	3910
7	555	443	1690	843	2360	4470	1800	1830	1860	1370	826	3460
8	555	452	1710	870	2320	3160	1820	1630	1870	1370	805	1730
9	536	755	1740	880	2320	1840	1800	1270	1850	1260	777	1140
10	526	936	2240	780	2280	1860	1770	1290	2000	1010	738	1190
11	526	936	2850	530	2270	1890	1740	1300	3160	838	680	1180
12	507	936	2800	530	2270	1910	2240	1750	3650	810	629	1130
13	507	922	2710	550	2710	1930	2850	2570	2100	693	622	1070
14	497	922	2150	560	3580	1980	3100	3090	1710	640	589	1010
15	488	936	1710	572	3550	2350	6820	3090	3870	642	558	942
16	479	908	1710	570	3510	3000	13500	3950	4960	650	635	910
17	461	908	1690	571	3500	3440	13100	4770	4760	649	698	941
18	443	908	1430	560	3570	4270	12500	4550	4480	639	646	956
19	443	908	1250	596	3720	3670	11800	4210	3020	640	565	901
20	452	922	1240	888	4130	1900	10900	2620	1810	640	524	660
21	443	922	920	1220	4590	2000	7990	1810	1780	715	489	483
22	434	922	800	1170	5630	2030	3680	1800	1750	1180	463	501
23	426	950	817	1150	7090	2050	2810	1540	1830	1440	436	513
24	417	1270	843	1120	8990	2290	2820	1270	1820	1360	380	521
25	417	3040	870	1090	14000	3060	2930	1280	1370	1250	431	521
26	628	4730	870	994	18200	3000	3010	1270	2560	1200	487	521
27	2180	4570	870	943	17100	2960	2990	1270	4770	1320	425	526
28	2250	4270	880	948	14600	3340	2890	1280	3850	1290	400	526
29	2200	2940	856	1440	---	4340	2850	1280	2610	2000	417	523
30	2090	1790	843	1920	---	4130	2930	1300	1720	4110	420	519
31	1470	---	817	1830	---	3930	---	1320	---	4970	482	---
TOTAL	23341	42137	49936	28405	142840	115320	137410	67820	77250	40646	24012	36598
MEAN	753	1405	1611	916	5101	3720	4580	2188	2575	1311	775	1220
MAX	2250	4730	2850	1920	18200	10500	13500	4770	4960	4970	3880	4130
MIN	417	443	800	530	860	1840	1740	1270	1320	639	380	483

CAL YR 1980 TOTAL 893443 MEAN 2441 MAX 10200 MIN 417
WTR YR 1981 TOTAL 785715 MEAN 2153 MAX 18200 MIN 380

03045000 LOYALHANNA CREEK AT KINGSTON, PA

LOCATION.--Lat 40°17'33", long 79°20'27", Westmoreland County, Hydrologic Unit 05010008, on right bank 60 ft (18 m) downstream from bridge on State Highway 217, at Kingston, 100 ft (30 m) downstream from Miller Run, 1.9 mi (3.1 km) upstream from Ninemile Run, and 3 mi (5 km) southeast of Latrobe.

DRAINAGE AREA.--172 mi² (445 km²)

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only October to December 1939, published in WSP 1305.

REVISED RECORDS.--WSP 1335: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,013.16 ft (308.811 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Oct. 1, 1969, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Latrobe Reservoir, capacity, 3,670 acre-ft (4.53 hm³), and diversion works at Kingston. Figures of daily discharge do not include diversion from reservoir and at Kingston intake to Borough of Latrobe. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 302 ft³/s (8.553 m³/s), 23.84 in/yr (606 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,700 ft³/s (841 m³/s) Oct. 15, 1954, gage height, 15.8 ft (4.82 m), present datum, from floodmarks, from rating curve extended above 8,700 ft³/s (250 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 0.1 ft³/s (0.003 m³/s) Sept. 4, 1953; minimum daily, 0.2 ft³/s (0.006 m³/s) Oct. 23, 24, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1918, 15.8 ft (4.82 m), present datum, Oct. 15, 1954. Flood of Mar. 17 or 18, 1936 reached a stage of about 15.5 ft (4.72 m), present datum, from information by local residents, discharge, 21,000 ft³/s (595 m³/s), from rating curve extended above 8,700 ft³/s (250 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 2	---	---	---	ice jam		Apr. 12	0800	5420	153	8.08	2.463
Feb. 21	0500	*6120	173	*8.46	2.579	Apr. 13	0230	5050	143	7.87	2.399

Minimum discharge, 12 ft³/s (0.34 m³/s) Oct. 16,17,18, gage height, 1.38 ft (0.421 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	45	220	74	110	559	367	277	92	111	119	268
2	21	42	231	70	150	445	319	247	79	97	94	308
3	21	38	327	68	769	378	266	211	113	89	90	661
4	22	38	237	96	483	321	237	188	555	81	189	456
5	23	38	211	140	341	344	229	168	565	78	111	289
6	23	37	192	120	280	330	207	162	342	72	80	167
7	22	35	174	96	240	281	173	151	354	60	72	117
8	21	59	177	90	220	241	156	127	227	51	64	123
9	19	63	228	84	190	227	165	115	430	45	55	113
10	17	63	438	78	180	246	186	104	642	40	46	77
11	17	49	317	74	1090	263	268	115	613	33	47	64
12	17	41	280	72	669	254	3820	211	391	32	65	58
13	16	38	267	70	437	290	3350	160	333	47	53	57
14	14	38	226	68	394	289	1750	148	583	786	43	50
15	13	40	187	66	339	256	1150	959	383	147	41	67
16	13	40	187	66	325	491	792	706	283	88	49	117
17	12	43	155	64	589	470	642	511	328	68	39	92
18	13	283	120	64	797	386	642	390	233	54	32	61
19	34	160	92	62	841	343	495	319	185	46	29	54
20	31	105	68	60	2610	300	406	264	158	79	27	50
21	28	98	72	62	4520	277	320	216	147	143	26	45
22	24	94	74	66	1940	262	274	182	243	117	24	48
23	22	83	78	62	1340	341	334	153	178	68	23	50
24	21	565	80	62	1090	407	418	132	131	53	22	40
25	447	696	84	58	838	373	505	119	250	52	22	34
26	342	392	66	54	637	347	418	107	359	250	21	32
27	109	306	65	310	493	550	390	130	198	371	19	31
28	78	299	64	210	514	521	338	112	150	273	19	31
29	74	267	74	140	---	495	346	107	122	578	18	30
30	58	228	82	100	---	511	326	97	109	264	43	30
31	49	---	78	86	---	430	---	149	---	164	239	---
TOTAL	1642	4323	5151	2792	22426	11228	19289	7037	8776	4437	1821	3620
MEAN	53.0	144	166	90.1	801	362	643	227	293	143	58.7	121
MAX	447	696	438	310	4520	559	3820	959	642	786	239	661
MIN	12	35	64	54	110	227	156	97	79	32	18	30
†	+6.8	+8.6	+8.4	+12.1	+27.2	+9.0	+8.9	+9.0	0	+13.3	-1.9	+9.0
MEAN‡	59.8	153	174	102	828	371	652	236	293	156	56.8	130
CFSM‡	.35	.89	1.01	.59	4.81	2.16	3.79	1.37	1.70	.91	.33	.76
IN‡	.40	.99	1.16	.68	5.01	2.49	4.23	1.58	1.90	1.05	.38	.85

CAL YR 1980 TOTAL 91837 MEAN 251 MAX 3520 MIN 12 ADJ +7.5 MEAN‡ 258 CFSM‡ 1.50 IN.‡ 20.43
WTR YR 1981 TOTAL 92542 MEAN 254 MAX 4520 MIN 12 ADJ +9.1 MEAN‡ 263 CFSM‡ 1.53 IN.‡ 20.72

† Diversion from and change in contents in Latrobe Reservoir and diversion from Kingston intake, equivalent in cubic feet per second; furnished by Latrobe Municipal Authority.

‡ Adjusted for diversion and change in reservoir contents.

03045000 LOYALHANNA CREEK AT KINGSTON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1970 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT										
01...	1045	18	345	8.1	15.0	--	--	48	93	200
27...	1100	110	--	7.2	4.5	--	--	16	40	108
DEC										
10...	0930	475	143	7.2	5.5	--	--	20	25	75
JAN										
19...	1145	62	180	7.2	.0	--	--	27	40	115
MAR										
02...	1030	474	150	6.2	4.0	.1	5.0	76	32	90
APR										
14...	1100	1750	110	7.3	13.0	--	--	90	23	73
JUN										
08...	1045	231	135	7.4	15.0	--	--	20	25	85
AUG										
03...	0930	89	200	7.0	19.0	--	--	32	38	122
SEP										
21...	1610	40	205	8.0	15.0	--	--	130	43	139

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT										
01...	.27	10.0	910	910	0	150	30	120	29	1.5
27...	.15	32.1	330	240	90	170	0	180	13	3.9
DEC										
10...	.10	96.2	770	730	40	90	40	50	22	28
JAN										
19...	.16	19.5	210	170	40	90	0	90	1	.17
MAR										
02...	.12	115	300	290	10	100	10	90	4	5.1
APR										
14...	.10	345	910	860	50	880	820	60	36	170
JUN										
08...	.12	53.0	470	410	60	90	30	60	12	7.5
AUG										
03...	.17	29.5	150	90	60	160	0	160	11	2.7
SEP										
21...	.19	15.1	380	330	50	100	20	80	7	.76

03047000 LOYALHANNA CREEK AT LOYALHANNA DAM, PA

LOCATION.--Lat 40°27'53", long 79°27'05", Westmoreland County, Hydrologic Unit 05010008, on left bank at downstream side of highway bridge, 0.7 mi (1.1 km) downstream from Loyalhanna Dam, 1.5 mi (2.4 km) south of Saltsburg, and 4.0 mi (6.4 km) upstream from confluence with Conemaugh River.

DRAINAGE AREA.--292 mi^2 (756 km^2).

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1970, published as "at Loyalhanna Creek Dam." Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1435: 1941.

GAGE.--Water-stage recorder. Datum of gage is 861.15 ft (262.479 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good. Flow completely regulated since 1942 by Loyalhanna Lake 0.7 mi (1.1 km) upstream and Latrobe Reservoir, combined capacity, 99,000 acre-ft (122 hm^3). Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--42 years, 485 ft^3/s (13.74 m^3/s), 22.56 in/yr (573 mm/yr), adjusted for storage since June 1942.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s (331 m^3/s) June 5, 1941, gage height, 10.30 ft (3.139 m); from rating curve extended above 5,200 ft^3/s (150 m^3/s); no flow on Aug. 9, 1979, minimum gage-height, -0.18 ft (-0.055 m) Aug. 23, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,510 ft^3/s (99.4 m^3/s) Apr. 15, gage height, 5.87 ft (1.789 m); minimum daily, 47 ft^3/s (1.33 m^3/s) Nov. 7, Aug. 25-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	110	495	115	515	2340	786	605	122	368	846	168
2	53	108	364	117	540	2300	780	495	125	372	834	246
3	53	108	232	117	870	2260	769	495	127	239	816	384
4	53	108	239	117	1200	1720	530	328	183	235	810	858
5	53	108	239	122	1190	1180	228	232	645	235	798	1440
6	53	78	376	120	1170	1170	232	235	1090	235	530	1670
7	53	47	515	120	1140	1160	232	235	792	192	239	1380
8	53	48	510	122	1110	1140	235	235	505	117	239	798
9	53	48	505	125	1090	1120	235	235	505	117	239	500
10	53	80	505	120	1030	1080	235	235	520	117	165	495
11	53	112	510	122	1000	1060	239	235	810	75	120	368
12	53	110	505	171	1110	708	575	235	1090	48	122	232
13	53	110	505	130	1270	485	960	239	681	50	122	177
14	53	110	505	120	1080	485	996	239	535	336	122	117
15	51	110	500	117	747	485	2060	242	810	655	120	120
16	51	110	364	115	600	490	3410	555	665	525	120	120
17	51	110	232	115	475	500	3310	834	510	515	120	120
18	51	110	232	117	495	505	3190	828	505	384	120	177
19	51	282	235	122	520	510	3040	822	495	246	117	242
20	51	456	235	117	565	510	2220	810	364	246	117	183
21	51	275	235	115	630	515	822	792	232	246	117	120
22	53	108	232	115	1000	510	510	452	235	246	117	120
23	53	110	232	115	1390	510	510	239	235	246	115	120
24	53	289	232	115	1940	515	515	239	235	246	83	120
25	56	840	228	117	2470	650	650	239	239	246	47	120
26	147	1150	168	117	2450	798	804	239	407	246	47	120
27	355	1120	110	192	2420	792	798	235	510	256	47	120
28	482	1090	112	242	2380	798	792	235	505	260	47	120
29	473	786	112	380	---	798	786	235	336	645	47	117
30	456	495	115	525	---	798	780	177	239	870	47	117
31	248	---	115	515	---	792	---	122	---	858	48	---
TOTAL	3475	8726	9694	4989	32397	28684	31229	11573	14252	9672	7478	10989
MEAN	112	291	313	161	1157	925	1041	373	475	312	241	366
MAX	482	1150	515	525	2470	2340	3410	834	1090	870	846	1670
MIN	51	47	110	115	475	485	228	122	122	48	47	117
†	-1.5	-2.9	-3.9	+41.7	+293	-267	-18.2	+4.7	-4.4	+79.8	-79.3	-16.0
MEAN‡	110	288	309	203	1450	658	1023	378	471	392	162	350
CFSM‡	.38	.99	1.06	.70	4.97	2.25	3.30	1.29	1.61	1.34	.55	1.20
IN.‡	.44	1.10	1.22	.81	5.18	2.59	3.90	1.49	1.80	1.54	.63	1.34

CAL YR 1980 TOTAL 168767 MEAN 461 MAX 2270 MIN 47 ADJ -3.6 MEAN‡ 457 CFSM‡ 1.56 IN.‡ 21.31
WTR YR 1981 TOTAL 173158 MEAN 474 MAX 3410 MIN 47 ADJ -0.1 MEAN‡ 474 CFSM‡ 1.62 IN.‡ 22.04

† Change in contents, equivalent in cubic feet per second, in Latrobe Reservoir and Loyalhanna Lake. Records of contents in Latrobe Reservoir furnished by the Latrobe Municipal Authority.

‡ Adjusted for change in reservoir contents.

03048500 KISKIMINETAS RIVER AT VANDERGRIFT, PA

LOCATION.--Lat 40°36'16", long 79°33'08", Westmoreland County, Hydrologic Unit 05010008, on left bank 0.5 mi (0.8 km) upstream from bridge on State Highway Alternate 66 at Vandergrift, and 2.2 mi (3.5 km) upstream from Pine Run.

DRAINAGE AREA.--1,825 mi^2 (4.727 km^2).

PERIOD OF RECORD.--August 1937 to current year. Monthly discharge only for some periods, published in WSP 1305. October 1920 to September 1932 (gage heights and discharge measurements only) in reports of Pennsylvania Department of Forest and Waters.

GAGE.--Water-stage recorder. Datum of gage is 769.40 ft (234.513 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Oct. 1, 1920, to Sept. 30, 1930, nonrecording gage; Oct. 1, 1930, to Sept. 30, 1932, water-stage recorder, at site 0.6 mi (1.0 km) downstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1971 by Yellow Creek Lake (station 03042260), since 1952 by Conemaugh River Lake, 23 mi (37 km) upstream, since 1942 by Loyalhanna Lake, 20 mi (32 km) upstream and by other reservoirs above station, the 11 most effective of which have a combined capacity of 105,700 acre-ft (130 hm^3). Figures of daily discharge do not include diversion from Beaver Run Reservoir to plants and communities downstream, nor into the Monongahela River basin. Evaporation from operation of Homer City and Conemaugh generating stations, which began during 1969 and 1970, respectively, can amount to as much as 45 ft^3/s (1.3 m^3/s). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 3,109 ft^3/s (88.05 m^3/s), 23.13 in/yr (588 mm/yr), adjusted for storage and diversion, 1938-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,900 ft^3/s (2,040 m^3/s) Mar. 31, 1940, gage height, 25.70 ft (7.833 m); minimum, 56 ft^3/s (1.59 m^3/s) Oct. 15, 16, 1952; minimum daily, 60 ft^3/s (1.70 m^3/s) Oct. 15, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 18, 1936, reached a stage of 41.64 ft (12.692 m), from floodmark at present site, discharge, 185,000 ft^3/s (5,240 m^3/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,300 ft^3/s (603 m^3/s) Feb. 26, gage height, 14.03 ft (4.270 m); minimum daily, 434 ft^3/s (12.3 m^3/s) Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	670	1070	2480	1090	1880	13900	4570	3860	1460	1820	5370	822
2	670	1050	2490	1090	1540	11500	3620	3580	1500	1890	3620	1590
3	664	1030	2540	1090	2520	11100	3680	3460	1570	1630	2370	1790
4	670	1020	3310	1090	3920	9720	3560	2950	1880	1630	1650	5300
5	652	997	3190	1100	3920	6570	3060	2160	2920	1760	1660	6940
6	646	956	2930	1100	3870	6340	2730	2180	5120	2250	1590	6100
7	646	538	2320	1060	3860	5960	2130	2160	2810	1780	1130	5330
8	640	550	2340	1090	3770	5050	2160	2110	2330	1600	1110	3750
9	622	574	2370	1100	3750	3050	2160	1590	2640	1520	1070	1890
10	628	1010	2620	990	3640	3040	2120	1580	2650	1310	1010	1880
11	634	1080	3530	715	3600	3040	2130	1640	3390	1010	850	1810
12	598	1080	3500	715	3720	2890	3980	1800	5260	911	790	1520
13	598	1070	3410	740	4380	2560	4970	2530	3530	911	765	1440
14	592	1070	3140	750	5130	2580	5010	3370	1940	1040	740	1270
15	580	1070	2320	760	4730	2800	7530	3390	4080	1400	721	1220
16	622	1060	2310	750	4520	3700	17600	3940	5950	1220	743	1160
17	604	1070	2070	755	4370	4010	17000	5670	5600	1200	827	1590
18	532	1070	1920	765	4470	4990	16300	5450	5230	1160	811	1310
19	520	1100	1580	780	4500	4500	15400	5110	4310	926	728	1340
20	520	1420	1520	1010	4800	2580	14000	3990	2330	1140	658	1210
21	514	1400	1380	1470	5600	2650	10400	2550	2110	1410	621	709
22	508	1090	1060	1420	6850	2690	4700	2430	2160	1370	592	713
23	496	1090	1160	1390	9170	2740	3500	1990	2140	1820	560	707
24	478	1810	1170	1360	10300	2950	3450	1510	2150	1720	553	703
25	908	3690	1070	1330	15100	3800	3580	1520	2500	1610	434	710
26	1260	6340	1100	1220	20900	3930	3860	1520	2540	1620	554	714
27	2670	6090	1080	1250	20000	3940	3850	1530	5640	1960	551	710
28	2860	5740	1090	1310	18300	4260	3780	1540	4870	1820	471	692
29	2760	4710	1060	2000	---	5320	4000	1570	3290	2710	453	665
30	2630	2480	1050	2690	---	5120	3990	1560	2350	4580	497	662
31	2360	---	1020	2580	---	4890	---	1490	---	6210	603	---
TOTAL	29752	54325	64130	36560	183110	152170	178820	81730	96310	54938	34102	56247
MEAN	960	1811	2069	1179	6540	4909	5961	2636	3210	1772	1100	1875
MAX	2860	6340	3530	2690	20900	13900	17600	5670	5950	6210	5370	6940
MIN	478	538	1020	715	1540	2560	2120	1490	1460	911	434	662

CAL YR 1980 TOTAL 1154727 MEAN 3155 MAX 13200 MIN 478
WTR YR 1981 TOTAL 1022194 MEAN 2801 MAX 20900 MIN 434

03049000 BUFFALO CREEK NEAR FREEPORT, PA

LOCATION.--Lat 40°42'57", long 79°41'59", Butler County, Hydrologic Unit 05010009, on right bank 0.6 mi (1.0 km) upstream from Little Buffalo Creek and 3 mi (5 km) north of Freeport.

DRAINAGE AREA.--137 mi^2 (355 km^2).

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for October 1940, published in WSP 1305.

GAGE.--Water-stage recorder. Altitude of gage is 792 ft (241 m) by barometer. Prior to July 19, 1962, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 193 ft^3/s (5.466 m^3/s), 19.13 in/yr (486 mm/yr).

EXTREMES FOR PERIOD.--Maximum discharge, 14,000 ft^3/s (396 m^3/s) Oct. 15, 1954, gage height, 13.60 ft (4.145 m), from floodmarks, from rating curve extended above 4,300 ft^3/s (120 m^3/s) on basis of slope-area measurement of peak flow; minimum observed, 1.3 ft^3/s (0.037 m^3/s) Oct. 16-18, 1960; minimum gage height, 0.69 ft (0.210 m) Sept. 1, 1962.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 2	1230	ice jam		*6.15	1.875	Apr. 14	0730	2190	62.0	4.99	1.521
Feb. 20	1830	*2240	63.4	5.05	1.539						

Minimum discharge, 5.5 ft^3/s (0.16 m^3/s) Aug. 26,27,28,29, gage height, 0.90 ft (0.274 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	94	210	70	90	290	241	595	56	226	45	26
2	35	82	231	62	600	244	222	432	83	121	39	47
3	38	73	283	56	450	203	191	334	134	102	34	42
4	47	71	218	52	310	170	175	268	213	87	51	294
5	35	69	203	58	250	181	208	219	107	92	33	488
6	29	59	181	62	210	171	176	211	105	118	26	149
7	27	53	175	66	180	148	147	184	93	82	24	93
8	27	84	195	62	160	133	138	148	72	65	23	190
9	26	86	247	60	140	127	139	129	291	56	20	200
10	24	88	323	58	120	137	129	119	173	49	19	111
11	55	69	275	56	250	155	122	160	120	42	17	85
12	44	60	230	54	540	150	1210	260	92	37	16	69
13	31	57	190	58	460	141	999	170	80	38	14	61
14	27	55	150	64	390	131	1710	100	201	109	13	50
15	24	55	130	60	320	121	1070	370	123	48	14	69
16	26	52	150	56	280	185	666	190	94	38	24	71
17	24	49	125	52	450	190	524	125	279	33	24	64
18	28	57	110	50	760	160	443	109	135	28	17	57
19	55	57	94	50	1250	140	338	102	104	25	11	45
20	31	49	82	50	2010	130	285	96	86	208	11	42
21	27	53	100	52	1430	120	229	88	87	182	9.2	37
22	26	60	90	54	820	112	197	80	213	93	7.8	35
23	24	57	82	52	887	165	236	74	176	62	7.2	35
24	23	160	88	52	846	160	294	68	109	47	6.6	30
25	466	315	76	50	593	140	257	63	435	40	6.6	28
26	457	218	66	60	448	117	211	60	590	47	6.0	26
27	218	195	68	200	361	195	198	76	292	91	6.0	24
28	191	214	70	150	330	179	192	84	187	67	5.5	23
29	151	239	72	110	---	175	962	71	137	195	7.8	21
30	119	203	84	94	---	233	895	63	128	83	12	20
31	103	---	78	86	---	279	---	83	---	58	56	---
TOTAL	2473	3033	4676	2116	14935	5182	12804	5131	4995	2569	605.7	2532
MEAN	79.8	101	151	68.3	533	167	427	166	167	82.9	19.5	84.4
MAX	466	315	323	200	2010	290	1710	595	590	226	56	488
MIN	23	49	66	50	90	112	122	60	56	25	5.5	20
CFSM	.58	.74	1.10	.50	3.89	1.22	3.12	1.21	1.22	.61	.14	.62
IN.	.67	.82	1.27	.57	4.06	1.41	3.48	1.39	1.36	.70	.16	.69

CAL YR 1980 TOTAL 79728.0 MEAN 218 MAX 1540 MIN 23 CFSM 1.59 IN 21.65
WTR YR 1981 TOTAL 61051.7 MEAN 167 MAX 2010 MIN 5.5 CFSM 1.22 IN 16.58

03049500 ALLEGHENY RIVER AT NATRONA, PA

LOCATION.--Lat 40°36'55", long 79°43'07", Allegheny County, Hydrologic Unit 05010009, on right bank 520 ft (158 m) upstream from dam at lock 4 at Natrona, 5.8 mi (9.3 km) downstream from Kiskiminetas River, and at mile 24.3 (39.1 km).

DRAINAGE AREA.--11,410 mi^2 (29,550 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1435: 1939.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 737.11 ft (224.671 m) National Geodetic Vertical Datum of 1929, (Corps of Engineers bench mark). Prior to Apr. 14, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated by Allegheny Reservoir, Chautauqua and Tionesta Lakes, Union City Reservoir, Woodcock Creek, East Branch Clarion River, Mahoning Creek, Crooked Creek, Yellow Creek, Conemaugh River, and Loyalhanna Lakes and by 15 smaller reservoirs, combined capacity, excluding that of Chautauqua Lake, 2,069,000 acre-ft (2,550 hm^3). Slight diversion since 1952 from Beaver Run Reservoir into the Monongahela River basin. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--43 years, 19,510 ft^3/s (552.5 m^3/s), 23.22 in/yr (590 mm/yr), adjusted for storage from 1940 to 1975.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 238,000 ft^3/s (6,740 m^3/s) Dec. 30, 1942, gage height, 27.46 ft (8.370 m); minimum, 895 ft^3/s (25.3 m^3/s) Oct. 22, 1963; minimum gage height, 8.82 ft (2.688 m) July 25, 26, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 32.06 ft (9.772 m) discharge, 365,000 ft^3/s (10,300 m^3/s), determined by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 136,000 ft^3/s (3,850 m^3/s) Feb. 21, gage height, 19.91 ft (6.069 m); minimum, 3,520 ft^3/s (99.7 m^3/s) Aug. 23, gage height, 9.35 ft (2.850 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4480	21100	17500	13000	14400	80200	27300	68700	10200	21600	17800	5570
2	4550	18900	17800	12100	18800	74500	24300	58400	11200	17400	13400	6440
3	4420	16700	24100	12400	23300	71300	22400	51500	12300	11900	10300	10000
4	4560	15800	29700	8650	22100	66800	21000	45700	12500	10100	9060	18300
5	4700	14700	26300	7440	18800	59300	19200	40300	17300	9310	9700	27900
6	5200	13600	23700	7330	16700	55200	22400	37300	22600	14400	8150	26200
7	5500	12700	21500	7950	17100	51600	21600	32000	18000	12900	6430	23600
8	5430	12200	19900	9090	16200	45600	19100	26700	14800	10800	5690	21700
9	5550	11500	23700	8570	15100	39100	16900	21800	35200	8570	13100	19800
10	5470	14100	43400	10300	14000	36700	15600	17100	66900	7570	11600	18700
11	5680	17300	46600	11100	24900	35600	15300	14900	38800	6270	9280	15200
12	5180	16700	45000	10800	29200	20400	20300	19000	32400	5730	8700	13000
13	4990	16000	42500	9670	30900	19100	21600	22800	26100	5020	8470	11000
14	5340	15100	40300	11800	36600	19100	27100	24000	21600	5600	8240	9430
15	6520	14300	36600	13600	36600	18100	34900	26200	27600	4980	7820	9770
16	7390	13400	22900	12900	35400	20000	48900	28300	40800	5110	8240	10400
17	6990	12200	20700	11400	39700	20500	45300	30600	36600	5030	10600	10300
18	6680	12700	19500	10500	55200	21900	44400	29600	32300	5040	11100	10600
19	6540	12300	18900	10600	88600	20000	41200	27900	27500	4630	8700	9870
20	5870	12300	17300	11600	110000	15800	37400	25500	22500	6150	7120	8860
21	5890	11900	12400	13000	124000	14700	30600	21700	18700	9210	5610	7310
22	6140	11800	9850	13200	88900	13800	24000	19500	18300	11700	4760	7370
23	6730	10800	10700	12400	91900	13200	22700	17200	21200	9890	3960	6920
24	8050	12400	13000	12200	97400	14500	27600	12900	18300	8200	3800	6870
25	10700	18400	10900	11900	93800	16400	33700	11000	18600	6990	4100	7540
26	24300	24700	9050	11700	94300	16900	34300	10100	22700	5920	4160	7600
27	31000	24900	9290	13600	89800	18500	31100	9860	21900	6430	4440	6610
28	27200	22400	10700	15900	85100	23400	29400	9980	19300	7420	4030	6610
29	25400	21800	10400	16700	---	24100	58300	11100	14800	9590	3900	6750
30	24200	18200	11800	16700	---	23000	94000	12400	12700	21100	4300	6100
31	23300	---	12200	15100	---	24900	---	11300	---	21000	5020	---
TOTAL	303950	470900	678190	363200	1428800	994200	931900	795340	713700	295560	241580	356320
MEAN	9805	15700	21880	11720	51030	32070	31060	25660	23790	9534	7793	11880
MAX	31000	24900	46600	16700	124000	80200	94000	68700	66900	21600	17800	27900
MIN	4420	10800	9050	7330	14000	13200	15300	9860	10200	4630	3800	5570

CAL YR 1980 TOTAL 7085470 MEAN 19360 MAX 66600 MIN 4290
WTR YR 1981 TOTAL 7573640 MEAN 20750 MAX 124000 MIN 3800

03049500 ALLEGHENY RIVER AT NATRONA, PA--Contirued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
NOV									
07...	0730	13000	227	7.3	7.0	30	43	137	.19
DEC									
04...	0900	31100	237	7.2	2.0	28	48	145	.20
JAN									
16...	0900	14100	220	7.4	.5	--	29	110	.15
FEB									
19...	1000	25300	215	7.0	3.0	17	47	136	.18
MAR									
19...	0915	19800	240	7.0	3.0	20	59	143	.19
APR									
23...	0930	23100	220	7.0	11.5	20	53	140	.19
MAY									
21...	1025	23600	190	7.2	13.0	--	42	134	.18
JUN									
23...	1030	23300	185	7.3	21.0	--	46	129	.18
AUG									
05...	0830	10100	260	7.0	23.0	20	68	196	.27
SEP									
03...	0900	7800	365	7.1	23.5	--	100	233	.32
25...	1000	8000	260	7.4	17.5	32	78	186	.25

DATE	SOLIDS, DIS-SOLVED (TCNS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV									
07...	4810	2000	1800	200	780	510	270	42	1470
DEC									
04...	12200	3700	3500	220	440	60	380	--	--
JAN									
16...	4190	990	910	80	280	180	100	--	--
FEB									
19...	9290	26000	26000	30	2600	2000	580	--	--
MAR									
19...	7650	1900	1300	600	500	70	430	19	1020
APR									
23...	8730	1500	1200	270	380	10	370	--	--
MAY									
21...	8540	950	900	50	340	60	280	--	--
JUN									
23...	8120	980	870	110	320	40	280	--	--
AUG									
05...	5350	940	910	30	470	90	380	--	--
SEP									
03...	4910	1100	--	<10	460	40	420	--	--
25...	4020	800	--	<10	400	60	340	--	--

03049625 ALLEGHENY RIVER AT NEW KENSINGTON, PA

(National stream quality accounting network, Pesticide program, and Radiochemical program)

LOCATION.--Lat 40°33'52", long 79°46'22", Allegheny County, Hydrologic Unit 05010009, at New Kensington highway bridge, 5.1 mi (8.2 km) downstream from lock and dam 4 at Natrona, 5.3 mi (8.5 km) downstream from gaging station at Natrona, and 19.0 mi (30.6 km) from mouth.

DRAINAGE AREA.--11,500 mi^2 (29,800 km^2).

PERIOD OF RECORD.--July 1972 to December 1973, October 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981 (discontinued).
WATER TEMPERATURES: October 1974 to September 1981 (discontinued).

REMARKS.--Composite samples taken as part of the USGS-EPA surveillance network. Records of discharge are given for 03049500 Allegheny River at Natrona, Pa.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 440 micromhos Feb. 20, 1980; minimum daily, 120 micromhos Mar. 11, 1979.
WATER TEMPERATURES: Maximum daily, 30.0°C Aug. 1, 2, 1975; minimum daily, freezing point on many days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 410 micromhos Oct. 4; minimum daily, 140 micromhos Feb. 21, 22, 23, 25, Mar. 1.
WATER TEMPERATURES: Maximum daily, 26.0°C July 13, 18, 19, 21; minimum daily, freezing point, Dec. 21-23, Jan. 1, 2, 3, 14, 15, 22, 23, 25, 26, 27, Feb. 3-10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN DIS-SOLVED (MG/L AS N)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV										
07...	0730	13200	227	7.3	7.0	.80	12.4	.73	45	K9
DEC										
04...	0900	31100	237	7.2	2.0	2.5	14.4	1.0	290	66
JAN										
16...	0900	14100	220	7.3	.5	1.2	14.1	.86	200	K3500
FEB										
19...	1000	61300	215	7.0	3.0	2.2	15.0	.99	560	1200
MAR										
19...	0915	19800	240	7.0	3.0	2.6	13.6	1.2	40	--
APR										
23...	0930	23100	220	7.0	11.5	15	11.0	1.0	K28	K10
MAY										
21...	1025	23600	190	7.2	13.0	4.1	10.2	.71	110	11
JUN										
23...	1030	23300	185	7.3	21.0	12	9.0	1.0	260	190
AUG										
05...	0830	10100	260	7.0	23.0	5.8	8.0	1.1	730	69
SEP										
03...	0900	7800	365	7.1	23.5	5.2	7.8	1.1	2200	7400
25...	1000	8000	260	7.4	17.5	7.5	9.6	.97	1200	1200

03049625 ALLEGHENY RIVER AT NEW KENSINGTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
NOV										
07...	70	44	20	4.9	9.2	21	.5	2.4	30	45
DEC										
04...	77	56	21	5.9	11	23	.5	1.7	28	49
JAN										
16...	69	40	20	4.7	11	25	.6	1.4	--	29
FEB										
19...	65	50	18	4.9	10	24	.5	1.7	15	45
MAR										
19...	--	--	--	--	--	--	--	1.5	--	59
APR										
23...	76	--	21	5.7	8.1	18	.4	1.5	--	55
MAY										
21...	61	--	17	4.6	7.6	21	.4	1.3	--	41
JUN										
23...	61	--	17	4.6	7.4	20	.4	1.4	--	44
AUG										
05...	93	--	26	6.7	11	20	.5	2.0	--	68
SEP										
03...	130	--	37	9.1	17	22	.7	2.2	--	100
25...	100	--	28	8.3	13	21	.6	1.8	--	72

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
NOV										
07...	13	.1	4.6	143	117	.19	5100	.50	.51	.120
DEC										
04...	16	.1	5.4	146	126	.20	12300	.68	.71	.040
JAN										
16...	18	<.1	4.2	113	108	.15	4300	.63	.61	.060
FEB										
19...	15	<.1	4.7	124	111	.17	20500	1.0	.50	.130
MAR										
19...	16	.1	6.1	145	10	.20	7750	.91	.91	.110
APR										
23...	11	.1	4.4	92	121	.13	5740	.65	.62	.090
MAY										
21...	10	.1	4.1	116	105	.16	7390	.48	.48	.050
JUN										
23...	11	<.1	5.5	121	101	.16	7610	.58	.58	.090
AUG										
05...	14	.1	5.2	173	147	.24	4720	.66	.70	.090
SEP										
03...	20	.2	4.1	229	206	.31	4820	.38	.35	.120
25...	19	.2	3.6	188	167	.26	4060	.45	.54	.140

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
NOV										
07...	.110	.15	.14	.20	.11	.32	.10	.22	.82	3.6
DEC										
04...	.070	.05	.09	.28	.26	.32	.00	.33	1.0	4.4
JAN										
16...	.050	.07	.06	.26	.20	.32	.07	.25	.95	4.2
FEB										
19...	.120	--	.15	1.3	.37	1.40	.91	.49	2.4	11
MAR										
19...	.120	--	.15	.21	.21	.32	.00	.33	1.2	5.4
APR										
23...	.090	--	.12	.37	.31	.46	.06	.40	1.1	4.9
MAY										
21...	.060	--	.08	.28	.17	.33	.10	.23	.81	3.6
JUN										
23...	.110	--	.14	.42	.32	.51	.08	.43	1.1	4.8
AUG										
05...	.130	--	.17	.21	.22	.30	.00	.35	.96	4.3
SEP										
03...	.090	--	.12	.28	.64	.40	.00	.73	.78	3.5
25...	.130	--	.17	.41	.30	.55	.12	.43	1.0	4.4

03049625 ALLEGHENY RIVER AT NEW KENSINGTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV										
07...	.050	.15	.010	4.5	--	--	940	42	1500	74
DEC										
04...	.020	.06	.010	--	2.2	.8	--	73	6130	88
JAN										
16...	.060	.18	<.010	2.2	--	--	--	4	152	100
FEB										
19...	.450	1.4	.010	13	--	--	--	636	105000	75
MAR										
19...	.150	.46	<.010	--	1.2	.4	26	19	1020	--
APR										
23...	.020	.06	<.010	2.6	--	--	--	16	998	92
MAY										
21...	.020	.06	<.010	1.8	--	--	2000	17	1080	92
JUN										
23...	.040	.12	<.010	--	2.4	--	1500	36	2270	95
AUG										
05...	.050	.15	.020	3.9	--	--	7600	28	764	--
SEP										
03...	.030	.09	.020	2.4	--	--	2900	16	337	96
25...	.030	.09	<.010	--	1.5	.6	1300	3400	73400	99

DATE	TIME	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
FEB											
19...	1000	1.2	18	<1.7	27	2.4	17	2.3	16	.06	<.01
SEP											
25...	1000	--	.5	<4.6	.8	3.7	1.0	3.5	1.0	.06	.02

03049625 ALLEGHENY RIVER AT NEW KENSINGTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
DEC 04...	0900	1	0	1	100	50	50	1	1	0	30
MAR 19...	0915	0	--	--	100	--	--	0	0	1	10
JUN 23...	1030	1	1	0	<50	--	60	1	--	<1	10
SEP 25...	1000	3	0	3	100	0	100	<1	--	<1	10

DATE	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
DATE	RECOV. (UG/L AS CR)	SOLVED (UG/L AS CR)	ERABLE (UG/L AS CO)	ERABLE (UG/L AS CO)	SOLVED (UG/L AS CO)	ERABLE (UG/L AS CU)	ERABLE (UG/L AS CU)	SOLVED (UG/L AS CU)	ERABLE (UG/L AS FE)	ERABLE (UG/L AS FE)	SOLVED (UG/L AS FE)
DEC 04...	20	10	8	6	2	7	7	0	3500	3300	170
MAR 19...	--	<10	6	0	12	7	5	2	--	--	580
JUN 23...	0	10	2	0	3	5	0	5	1000	940	60
SEP 25...	0	10	1	0	1	7	--	<1	710	700	10

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)
DEC 04...	5	0	6	440	110	330	.2	<.1	4	0
MAR 19...	24	19	5	--	--	--	<.1	<.1	17	2
JUN 23...	6	6	0	330	70	260	<.1	<.1	7	0
SEP 25...	5	4	1	430	60	370	<.1	<.1	16	9

DATE	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 04...	5	0	0	0	2	2	0	60	50	8
MAR 19...	15	0	0	0	1	1	0	--	--	--
JUN 23...	21	0	0	0	0	0	0	30	10	20
SEP 25...	7	<1	--	<1	<1	--	<1	30	10	20

BEST DOCUMENT AVAILABLE

03049625 ALLEGHENY RIVER AT NEW KENSINGTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY
(Cross section location 220)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	260	245	300	320	160	280	---	290	260	310	350
2	385	230	260	280	300	170	280	---	280	230	290	350
3	385	250	240	280	290	170	290	---	280	250	300	360
4	400	240	220	---	300	200	240	---	280	255	285	320
5	405	220	260	---	290	180	220	---	265	230	260	330
6	380	240	220	---	290	220	230	---	320	230	260	310
7	400	240	225	---	320	220	230	---	280	220	290	280
8	390	240	250	---	340	230	235	---	280	260	300	270
9	400	270	220	---	310	220	240	---	250	280	300	270
10	390	250	220	---	320	245	240	---	185	300	290	240
11	390	265	215	---	385	220	240	---	180	300	290	270
12	390	250	220	---	340	250	250	---	180	290	300	270
13	370	310	230	---	340	230	240	---	190	300	290	260
14	380	290	220	300	---	260	230	---	180	280	290	260
15	360	270	210	320	---	230	235	---	190	310	290	250
16	380	270	220	---	340	225	210	---	220	300	280	250
17	350	270	215	---	380	220	200	---	180	350	270	250
18	340	265	240	---	260	280	200	---	180	320	270	270
19	330	250	220	---	215	250	195	---	200	320	270	250
20	320	250	240	290	180	260	220	---	195	310	280	270
21	330	290	240	250	160	270	250	---	190	330	280	300
22	360	290	260	315	150	265	250	---	190	300	290	285
23	340	275	260	350	160	260	240	---	190	320	315	275
24	340	300	260	340	160	280	230	---	220	300	310	280
25	340	300	260	340	155	285	235	---	230	270	310	250
26	340	310	285	360	160	280	---	265	220	320	315	290
27	310	300	300	290	170	280	---	280	220	340	310	290
28	310	275	300	360	180	280	---	290	220	390	320	280
29	270	250	290	370	---	280	---	280	250	350	320	300
30	280	260	300	340	---	260	---	290	250	310	310	300
31	260	---	300	340	---	260	---	280	---	300	300	---
MEAN	355	266	247	319	262	240	236	281	226	294	293	284

WTR YR 1981 MEAN 274 MAX 405 MIN 150

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY
(Cross section location 580)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	220	230	250	290	140	260	---	260	260	310	350
2	380	205	240	280	300	160	250	---	250	230	290	340
3	380	220	240	260	290	160	260	---	250	250	290	370
4	410	220	190	---	290	160	220	---	270	245	270	320
5	400	220	220	---	290	170	215	---	240	230	250	330
6	380	220	200	---	270	160	200	---	310	230	250	300
7	390	205	195	---	290	165	200	---	260	215	290	260
8	390	210	220	---	300	180	215	---	260	260	300	260
9	390	225	200	---	290	180	220	---	250	280	290	250
10	380	225	200	---	320	200	220	---	165	280	270	235
11	390	240	195	---	360	190	215	---	160	300	285	260
12	380	220	185	---	330	190	240	---	160	280	290	260
13	380	260	220	---	320	200	230	---	180	310	270	240
14	340	235	200	290	---	210	230	---	160	290	260	250
15	360	240	180	280	---	220	225	---	190	315	290	250
16	380	225	180	---	340	240	210	---	210	310	270	250
17	340	240	180	---	360	210	190	---	170	350	270	255
18	340	240	190	---	260	240	190	---	130	330	250	270
19	320	240	200	---	215	230	185	---	190	330	260	240
20	315	240	210	290	150	220	200	---	180	320	280	280
21	320	240	200	280	140	240	220	---	185	340	290	310
22	340	275	240	290	140	235	220	---	190	300	290	290
23	340	260	235	280	140	240	185	---	180	310	315	280
24	325	260	240	260	150	260	190	---	210	310	310	280
25	340	260	240	300	140	240	200	---	230	280	320	260
26	330	300	260	290	150	260	---	250	215	330	320	290
27	270	300	270	260	160	250	---	250	220	330	320	295
28	230	270	260	300	160	260	---	270	215	390	330	290
29	240	250	270	295	---	250	---	260	250	340	330	310
30	230	245	250	290	---	235	---	250	250	310	320	300
31	230	---	260	300	---	225	---	260	---	300	310	---
MEAN	343	240	219	282	248	210	216	257	214	295	290	283

WTR YR 1981 MEAN 258 MAX 410 MIN 140

03049625 ALLEGHENY RIVER AT NEW KENSINGTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

TEMPERATURE, WATER (DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY
(Cross section location 220)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	7.0	4.0	.0	1.0	4.0	4.5	---	20.0	21.0	23.0	23.0
2	19.0	7.0	4.0	.0	1.0	4.5	10.0	---	20.0	21.0	23.5	23.0
3	18.0	8.0	3.0	.0	.0	3.5	11.0	---	20.0	22.0	23.0	23.5
4	16.5	8.0	3.0	---	.0	3.0	12.0	---	20.0	25.0	23.0	23.0
5	17.0	7.0	3.0	---	.0	3.0	11.0	---	21.0	22.0	23.0	22.5
6	16.0	7.0	3.0	---	.0	2.5	11.0	---	21.0	22.0	23.0	22.0
7	17.0	7.0	4.0	---	.0	2.5	11.0	---	21.0	23.5	23.0	21.0
8	16.0	7.5	4.0	---	.0	2.0	13.0	---	21.0	23.0	22.5	21.0
9	16.0	8.5	4.0	---	.0	2.5	11.5	---	21.0	24.0	23.0	19.5
10	16.5	7.5	4.0	---	.0	2.5	11.0	---	19.0	25.0	24.5	20.0
11	16.0	7.0	4.0	---	1.0	3.0	12.0	---	18.0	25.0	24.0	21.0
12	15.0	7.0	4.0	---	1.0	3.0	13.0	---	19.0	25.0	24.5	20.5
13	14.0	7.5	3.0	---	1.0	4.0	13.0	---	19.0	26.0	24.5	19.5
14	13.0	7.0	2.5	.0	---	3.5	12.0	---	19.0	25.0	24.5	20.0
15	13.0	6.0	2.0	.0	---	3.0	10.5	---	20.5	25.0	24.0	20.0
16	13.0	5.5	1.5	---	1.0	4.0	11.5	---	22.0	25.0	23.0	19.5
17	13.5	5.0	1.0	---	1.0	3.5	12.0	---	21.5	25.5	22.5	19.5
18	14.5	5.0	1.0	---	2.0	3.0	11.0	---	20.5	26.0	23.0	18.0
19	15.0	4.5	1.0	---	2.0	3.0	10.0	---	21.0	26.0	24.0	18.0
20	13.0	5.0	.5	2.0	1.5	2.5	10.5	---	21.0	25.0	23.0	18.0
21	12.0	4.0	.0	.5	2.0	2.0	12.0	---	22.0	26.0	22.0	18.0
22	12.0	4.0	.0	.0	2.5	2.0	11.5	---	21.0	24.5	22.0	17.5
23	11.5	4.5	.0	.0	4.0	3.0	11.5	---	21.0	24.5	23.5	16.0
24	11.0	4.0	.0	.5	4.0	4.0	11.0	---	22.0	25.0	22.5	16.0
25	11.5	4.0	.0	.0	4.0	3.5	10.0	---	21.0	24.5	22.5	18.0
26	10.0	4.0	.0	.0	4.0	3.0	---	19.0	21.0	24.0	23.0	16.5
27	8.5	4.0	.0	.0	3.5	4.0	---	20.0	20.0	24.5	22.0	16.5
28	8.0	4.0	.0	1.0	4.5	4.0	---	19.0	21.0	24.5	23.0	16.0
29	8.0	4.0	.0	1.0	---	4.0	---	20.5	21.0	23.5	23.0	15.5
30	7.5	3.5	.0	1.0	---	4.5	---	20.0	22.0	22.5	23.0	15.0
31	7.5	---	.0	1.0	---	4.5	---	20.0	---	23.5	23.0	---
MEAN	13.5	6.0	2.0	.5	1.5	3.5	11.0	20.0	20.5	24.0	23.0	19.5

WTR YR 1981 MEAN 12.0 MAX 26.0 MIN .0

TEMPERATURE, WATER (DEG.°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY
(Cross section location 580)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	7.0	4.0	.0	1.0	4.0	4.5	---	20.0	21.0	23.0	23.0
2	19.0	7.0	4.0	.0	1.0	4.0	10.0	---	20.0	21.0	23.5	23.0
3	18.0	7.5	3.0	.0	.0	3.5	11.0	---	20.0	22.0	23.0	23.5
4	17.0	8.0	3.0	---	.0	3.0	12.0	---	20.0	22.0	23.0	23.0
5	17.0	7.0	3.0	---	.0	3.0	11.0	---	21.0	22.0	23.0	22.5
6	16.0	7.0	3.0	---	.0	2.0	11.0	---	20.5	22.0	23.0	22.0
7	16.5	7.0	4.0	---	1.0	2.0	11.0	---	21.0	23.5	23.0	21.0
8	16.0	7.5	4.0	---	.0	2.0	13.0	---	21.0	23.0	22.5	21.0
9	16.0	8.5	4.0	---	.0	2.0	11.0	---	21.0	24.0	23.0	19.5
10	16.0	7.5	4.5	---	.0	2.5	11.0	---	19.0	25.0	24.5	20.0
11	16.0	7.0	4.0	---	1.0	2.5	12.0	---	18.0	25.0	24.0	21.0
12	15.0	7.0	4.0	---	1.0	3.0	13.0	---	19.0	25.0	24.5	20.0
13	14.0	7.5	3.5	---	1.0	4.0	13.0	---	19.0	26.0	24.5	19.5
14	13.0	7.0	2.5	.0	---	3.5	12.0	---	19.0	25.0	24.5	20.0
15	13.0	6.0	2.0	.0	---	3.0	10.5	---	20.5	25.0	24.0	20.0
16	13.0	5.5	1.5	---	1.0	4.0	11.5	---	21.5	25.0	23.0	19.5
17	13.5	5.0	1.0	---	2.0	3.5	12.0	---	21.0	25.5	22.5	20.0
18	14.5	5.0	1.5	---	3.0	3.0	10.5	---	20.5	26.0	23.0	18.0
19	15.0	4.5	1.0	---	2.0	3.0	10.0	---	21.0	26.0	24.0	18.0
20	13.0	5.0	.5	2.0	1.5	2.5	10.5	---	21.0	25.0	23.0	18.0
21	12.5	4.0	.0	1.0	2.0	2.0	11.0	---	22.0	26.0	22.0	18.0
22	12.0	4.5	.0	.0	2.5	2.0	11.0	---	21.0	24.5	22.0	17.5
23	11.5	4.0	.0	.5	4.0	3.0	11.5	---	21.0	24.5	23.5	16.0
24	11.0	5.0	.0	.5	4.0	3.5	11.0	---	22.0	25.0	22.5	16.0
25	11.5	4.5	.0	.5	4.0	3.5	10.0	---	21.0	24.5	22.5	18.0
26	10.0	4.0	.0	1.0	4.0	3.0	---	19.0	21.0	24.5	23.0	16.5
27	8.5	4.0	.0	1.0	3.5	4.0	---	19.5	20.0	24.5	22.0	16.5
28	8.0	5.0	.0	1.0	4.0	4.0	---	19.0	21.0	24.5	23.0	16.0
29	7.5	4.0	.0	1.0	---	4.0	---	20.0	21.0	24.0	23.0	15.5
30	7.5	4.0	.0	1.0	---	4.5	---	20.0	21.5	22.5	23.0	15.0
31	7.5	---	.0	1.0	---	4.5	---	20.0	---	23.5	23.0	---
MEAN	13.5	6.0	2.0	.5	1.5	3.0	11.0	19.5	20.5	24.0	23.0	19.5

WTR YR 1981 MEAN 12.0 MAX 26.0 MIN .0

03049800 LITTLE PINE CREEK NEAR ETNA, PA

LOCATION.--Lat 40°31'13", long 79°56'18", Allegheny County, Hydrologic Unit 05010009, on right bank at downstream side of highway bridge on Saxonburg Boulevard, 0.7 mi (1.1 km) upstream from mouth, and 1.5 mi (2.4 km) northeast of Etna.

DRAINAGE AREA.--5.78 mi² (14.97 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 778.26 ft (237.214 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 6.24 ft³/s (0.177 m³/s), 14.66 in/yr (372 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,040 ft³/s (57.8 m³/s) June 30, 1974, gage height, 6.06 ft (1.847 m), from peak-stage indicator, from rating curve extended above 150 ft³/s (4.2 m³/s) on basis of contracted-opening measurement of peak flow at site about 1.5 mi (2.4 km) upstream, adjusted for flow from intervening area; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 74 ft³/s (2.10 m³/s) Apr. 12, no peak above base of 150 ft³/s (4.25 m³/s); minimum discharge, 0.23 ft³/s (0.065 m³/s) Aug. 23,25,26,27, gage height, 0.33 ft (0.101 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.47	1.2	3.2	1.4	6.0	8.4	9.2	20	2.0	20	3.5	1.1
2	.54	1.1	5.6	1.3	11	6.0	8.2	14	5.0	9.2	2.7	1.8
3	.62	1.0	4.9	1.2	6.4	5.4	7.4	9.6	15	5.8	2.1	1.5
4	.62	1.2	4.1	1.2	4.7	4.9	6.6	6.4	8.0	5.2	1.7	4.4
5	.62	1.2	3.3	1.1	4.1	19	7.6	6.0	4.4	6.2	1.7	18
6	.54	1.1	3.2	1.4	3.6	11	6.4	8.0	3.3	8.6	1.4	4.3
7	.62	1.1	3.1	1.9	3.3	7.0	5.8	5.3	2.5	4.4	1.2	1.7
8	.62	2.8	2.9	1.4	3.7	5.4	5.6	4.1	2.3	3.0	1.1	8.0
9	.54	1.9	2.8	1.1	4.3	4.7	5.0	3.8	16	2.3	.92	2.1
10	.54	1.3	6.0	1.0	5.0	5.0	4.6	3.5	17	1.8	.80	1.2
11	1.7	.90	5.0	.90	8.0	4.8	4.4	4.1	9.2	1.3	.80	.92
12	.62	.60	4.4	.86	21	4.6	74	3.3	5.3	1.2	.80	1.2
13	.62	.44	3.8	.94	14	4.7	27	2.9	6.8	9.2	1.4	1.1
14	.54	.36	3.1	1.1	8.0	5.0	26	2.7	22	5.0	.92	1.4
15	.54	1.1	3.8	1.0	5.0	4.7	18	5.3	9.6	2.5	.60	2.0
16	.54	.35	4.1	.90	8.0	19	13	3.5	8.8	1.4	.60	3.1
17	.54	.70	3.1	.86	17	5.4	12	2.7	11	.92	.51	2.0
18	1.7	1.9	2.6	.82	7.0	6.0	8.8	2.3	6.8	.80	.43	1.4
19	1.2	1.1	2.3	.82	6.6	4.9	6.0	2.1	5.0	.92	.40	1.6
20	1.4	.64	2.0	.82	15	3.6	5.3	2.0	3.8	9.6	.40	1.5
21	1.7	.84	1.9	.88	39	7.4	4.4	1.7	3.8	22	.35	1.3
22	1.5	1.0	3.4	1.0	25	6.6	3.8	1.7	7.6	8.8	.35	1.3
23	1.5	2.0	3.0	.94	36	6.8	6.8	1.7	3.5	4.1	.29	1.2
24	1.7	15	2.2	.86	28	7.8	6.0	1.5	2.7	2.7	.29	1.2
25	13	8.0	1.6	1.2	20	6.8	5.3	1.5	22	2.1	.29	1.1
26	3.6	3.3	2.0	3.0	14	7.2	5.0	1.4	12	5.3	.29	1.1
27	1.5	4.6	2.6	6.4	10	8.0	4.7	1.8	7.2	3.3	2.0	1.0
28	2.3	4.9	1.9	4.5	14	7.4	7.6	2.5	4.7	14	3.1	1.1
29	1.5	4.1	1.4	3.7	---	6.8	54	2.0	3.3	22	7.2	1.1
30	1.1	3.7	2.4	5.6	---	8.4	32	2.3	16	8.4	2.0	1.1
31	1.1	---	1.9	3.7	---	10	---	1.8	---	5.0	3.1	---
TOTAL	45.63	69.43	97.6	53.80	347.7	222.7	390.5	131.5	246.6	197.04	43.24	71.82
MEAN	1.47	2.31	3.15	1.74	12.4	7.18	13.0	4.24	8.22	6.36	1.39	2.39
MAX	13	15	6.0	6.4	39	19	74	20	22	22	7.2	18
MIN	.47	.35	1.4	.82	3.3	3.6	3.8	1.4	2.0	.80	.29	.92
CFSM	.25	.40	.55	.30	2.15	1.24	2.25	.73	1.42	1.10	.24	.41
IN.	.29	.45	.63	.35	2.24	1.43	2.51	.85	1.59	1.27	.28	.46

CAL YR 1980 TOTAL 1888.28 MEAN 5.16 MAX 53 MIN .34 CFSM .89 IN 12.15
WTR YR 1981 TOTAL 1917.56 MEAN 5.25 MAX 74 MIN .29 CFSM .91 IN 12.34

03049800 LITTLE PINE CREEK NEAR ETNA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
NOV									
14...	1135	.36	520	8.7	7.5	114	69	322	.44
JAN									
08...	1300	.17	550	7.9	.0	98	68	330	.45

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV									
14...	.31	50	30	20	10	0	10	10	.01
JAN									
08...	.16	90	70	20	10	0	20	1	.00

03070415 STONY FORK NEAR FARMINGTON, PA

LOCATION.--Lat 39°46'51", long 79°34'31", Fayette County, Hydrologic Unit 05020004, at culvert on gravel road, 0.2 mi (0.3 km) southwest of Camp Riamo, 1.8 mi (2.9 km) south of Farmington, 2.8 mi (4.5 km) east of Elliottsville, and 3.0 mi (4.8 km) northeast of Gibbon Glade.

DRAINAGE AREA.--2.50 mi² (6.48 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,710 ft (521 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 146 ft³/s (4.13 m³/s) Apr. 12, 1981, gage height, 7.26 ft (2.213 m); minimum, 0.02 ft³/s (0.001 m³/s) July 21, 1980, gage height, 0.96 ft (0.293 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 68 ft³/s (1.93 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 12	0500	74	2.10	5.05	1.539	Apr. 18	0545	131	3.71	6.88	2.097
Apr. 12	2130	*146	4.13	*7.26	2.213						

Minimum discharge, 0.06 ft³/s (0.002 m³/s) Oct, 1, gage height, 0.98 ft (0.299 m)

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	1.1	5.8	1.9	7.2	15	3.5	6.1	2.0	2.0	.63	.58
2	.17	.94	7.1	2.0	25	11	3.2	5.0	2.0	1.1	.53	1.1
3	.26	.81	8.2	1.9	15	8.5	2.8	4.0	2.0	1.0	.63	1.6
4	.28	.87	6.7	1.8	10	7.0	2.6	3.3	2.9	1.2	.53	2.9
5	.26	.75	6.0	1.7	7.0	9.4	2.7	2.8	3.3	.87	.40	1.3
6	.20	.62	5.4	1.6	5.0	9.0	2.4	2.6	19	.82	.43	.77
7	.20	.62	4.6	1.5	3.7	7.4	1.8	2.0	14	.63	.63	.58
8	.17	1.5	4.3	1.4	3.6	6.4	1.6	1.5	9.0	.53	.43	.87
9	.15	1.6	8.5	1.4	3.5	5.6	1.7	1.3	13	.43	.32	.72
10	.12	1.6	10	1.3	3.5	5.4	1.5	1.3	32	.40	.24	.53
11	.15	1.3	8.4	1.2	13	5.4	5.0	1.5	17	.35	.19	.38
12	.13	1.1	7.0	1.2	10	5.4	52	1.3	10	.40	.19	.35
13	.12	.94	5.8	1.1	8.4	7.2	68	1.1	7.9	.38	.16	.32
14	.10	.87	4.8	1.1	7.2	7.6	40	1.0	21	.38	.16	.32
15	.09	.87	4.1	1.0	6.2	6.8	27	11	14	.24	.24	12
16	.09	.76	3.8	.94	6.6	9.5	15	7.8	9.0	.24	1.2	14
17	.09	3.6	3.0	.92	14	9.0	11	5.6	6.1	.24	.30	7.3
18	.18	16	2.6	.84	18	7.4	49	5.0	3.6	.16	.27	4.2
19	.17	7.7	2.3	.84	14	6.4	23	9.0	2.4	.15	.15	2.6
20	.15	5.5	2.0	.84	29	5.8	14	9.2	2.3	.58	.14	1.9
21	.13	4.3	1.9	1.0	30	4.7	9.2	6.9	1.8	.87	.13	1.3
22	.13	3.6	1.8	1.2	18	4.1	6.7	5.6	2.8	.72	.12	1.1
23	.12	3.1	1.7	1.3	16	4.7	7.8	4.0	1.6	.38	.11	.87
24	.11	17	1.6	1.3	14	5.3	14	2.9	1.3	.35	.10	.72
25	5.0	16	1.6	1.5	11	5.0	18	2.2	2.1	.32	.11	.68
26	3.7	11	1.5	4.2	8.4	4.6	13	2.1	1.8	.40	.10	.58
27	1.6	8.5	1.4	9.6	6.8	5.0	10	3.0	1.1	1.3	.10	.48
28	2.0	7.6	1.4	8.4	13	4.4	7.3	2.4	.92	2.0	.09	.40
29	2.0	6.5	1.3	6.6	---	4.2	7.3	2.1	1.1	2.6	.09	.40
30	1.5	5.8	1.8	4.0	---	4.2	6.9	2.0	1.4	1.2	.19	.40
31	1.2	---	1.7	2.6	---	3.5	---	2.8	---	.77	.32	---
TOTAL	20.72	132.45	128.1	68.18	327.1	204.9	428.0	118.4	208.42	23.01	9.23	61.25
MEAN	.67	4.42	4.13	2.20	11.7	6.61	14.3	3.82	6.95	.74	.30	2.04
MAX	5.0	17	10	9.6	30	15	68	11	32	2.6	1.2	14
MIN	.09	.62	1.3	.84	3.5	3.5	1.5	1.0	.92	.15	.09	.32
CFSM	.27	1.77	1.65	.88	4.68	2.64	5.72	1.53	2.78	.30	.12	.82
IN.	.31	1.97	1.91	1.01	4.87	3.05	6.37	1.76	3.10	.34	.14	.91

WTR YR 1981 TOTAL 1729.76 MEAN 4.74 MAX 68 MIN .09 CFSM 1.90 IN 25.73

03070415 STONY FORK NEAR FARMINGTON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1977 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: June 1980 to current year.

INSTRUMENTATION.--Sediment pumping sampler since June 17, 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 176 mg/L Apr. 12, 1981; minimum daily, 1 mg/L on several days.
SEDIMENT DISCHARGES: Maximum daily, 42 tons (37 tonnes) Apr. 12, 1981; minimum daily, 0.0 ton (0.0 tonnes) on many days.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 176 mg/L Apr. 12; minimum daily, 1 mg/L on several days.
SEDIMENT DISCHARGES: Maximum daily, 42 tons (37 tonnes) Apr. 12; minimum daily, 0.0 ton (0.0 tonne) on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
OCT 21...	1415	9813	.45	76	7.4	10.0	10	12	8.0	--
NOV 05...	1330	9813	.84	65	6.6	6.0	6.0	6	13	190
DEC 17...	1230	9813	2.9	60	6.4	2.0	4.0	4	10	380
JAN 30...	1200	9813	6.1	55	6.9	.0	7.0	4	19	360
FEB 18...	1220	9813	16	70	5.8	8.0	6.0	4	12	650
MAR 26...	1000	9813	4.7	110	5.0	--	16	0	35	1670
APR 24...	1440	9813	15	105	4.9	9.0	20	1	34	2260
MAY 29...	1205	9813	2.1	130	4.6	13.0	16	0	39	2130
JUN 16...	1130	9813	9.0	155	4.7	18.0	14	1	50	3750
JUL 27...	1330	9813	1.2	200	4.5	20.5	16	0	78	1480
AUG 28...	1200	9813	.10	270	6.1	19.0	24	13	102	330
SEP 25...	1310	9813	.72	160	4.6	13.0	26	1	56	2310

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 21...	--	--	--	--	--	--	--	8	.01
NOV 05...	<50	980	410	320	290	40	30	2	.00
DEC 17...	100	430	260	270	250	40	40	--	--
JAN 30...	100	310	160	230	210	50	40	1	.02
FEB 18...	300	390	170	370	510	60	60	51	2.2
MAR 26...	1370	270	210	1120	1080	100	90	7	.09
APR 24...	1820	900	280	1450	1340	130	110	22	.89
MAY 29...	1830	2090	440	1790	1750	140	130	4	.02
JUN 16...	1970	1790	760	2940	2210	200	140	22	.53
JUL 27...	600	1680	700	3630	3600	150	140	18	.06
AUG 28...	180	5130	4200	3800	3730	60	60	17	.00
SEP 25...	2040	1310	1270	2950	2710	150	150	5	.01

03070415 STONY FORK NEAR FARMINGTON, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	.15	12	.00	1.1	2	.00	5.8	9	.14
2	.17	13	.00	.94	1	.00	7.1	10	.22
3	.26	14	.00	.81	1	.00	8.2	14	.31
4	.28	13	.00	.87	2	.00	6.7	11	.20
5	.26	11	.00	.75	1	.00	6.0	10	.16
6	.20	12	.00	.62	2	.00	5.4	9	.13
7	.20	10	.00	.62	2	.00	4.6	10	.12
8	.17	11	.00	1.5	5	.02	4.3	11	.13
9	.15	13	.00	1.6	3	.01	8.5	23	.61
10	.12	12	.00	1.6	2	.00	10	11	.30
11	.15	11	.00	1.3	2	.00	8.4	9	.20
12	.13	11	.00	1.1	1	.00	7.0	7	.13
13	.12	10	.00	.94	1	.00	5.8	7	.11
14	.10	9	.00	.87	2	.00	4.8	5	.06
15	.09	10	.00	.87	3	.00	4.1	6	.07
16	.09	9	.00	.76	3	.00	3.8	6	.06
17	.09	10	.00	3.6	15	.36	3.0	2	.02
18	.18	12	.00	16	56	3.2	2.6	1	.00
19	.17	11	.00	7.7	15	.31	2.3	2	.01
20	.15	9	.00	5.5	12	.18	2.0	2	.01
21	.13	7	.00	4.3	10	.12	1.9	3	.02
22	.13	5	.00	3.6	8	.08	1.8	3	.01
23	.12	4	.00	3.1	8	.07	1.7	5	.02
24	.11	5	.00	17	52	3.4	1.6	5	.02
25	5.0	88	2.0	16	20	.86	1.6	4	.02
26	3.7	15	.15	11	15	.45	1.5	4	.02
27	1.6	3	.01	8.5	13	.30	1.4	5	.02
28	2.0	2	.01	7.6	11	.23	1.4	5	.02
29	2.0	1	.00	6.5	10	.18	1.3	4	.01
30	1.5	2	.00	5.8	7	.11	1.8	4	.02
31	1.2	2	.00	---	---	---	1.7	4	.02
TOTAL	20.72	---	2.17	132.45	---	9.88	128.1	---	3.19

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	1.9	7	.04	7.2	23	.58	15	19	.77
2	2.0	7	.04	25	74	6.1	11	15	.45
3	1.9	6	.03	15	17	.69	8.5	11	.25
4	1.8	7	.03	10	14	.38	7.0	8	.15
5	1.7	8	.04	7.0	12	.23	9.4	11	.28
6	1.6	8	.03	5.0	11	.15	9.0	9	.22
7	1.5	9	.04	3.7	10	.10	7.4	8	.16
8	1.4	9	.03	3.6	11	.11	6.4	7	.12
9	1.4	10	.04	3.5	11	.10	5.6	6	.09
10	1.3	10	.04	3.5	13	.12	5.4	8	.12
11	1.2	8	.03	13	40	1.4	5.4	5	.07
12	1.2	8	.03	10	15	.41	5.4	9	.13
13	1.1	9	.03	8.4	10	.23	7.2	10	.19
14	1.1	8	.02	7.2	9	.17	7.6	7	.14
15	1.0	8	.02	6.2	10	.17	6.8	6	.11
16	.94	7	.02	6.6	11	.20	9.5	12	.31
17	.92	7	.02	14	38	1.7	9.0	6	.15
18	.84	7	.02	18	27	1.3	7.4	5	.10
19	.84	6	.01	14	20	.76	6.4	5	.09
20	.84	6	.01	29	62	5.1	5.8	5	.08
21	1.0	6	.02	30	25	2.0	4.7	4	.05
22	1.2	6	.02	18	18	.87	4.1	6	.07
23	1.3	7	.02	16	29	1.4	4.7	9	.11
24	1.3	6	.02	14	15	.57	5.3	8	.11
25	1.5	6	.02	11	11	.33	5.0	6	.08
26	4.2	35	.78	8.4	10	.23	4.6	4	.05
27	9.6	28	.74	6.8	10	.18	5.0	7	.09
28	8.4	15	.34	13	38	2.3	4.4	6	.07
29	6.6	13	.23	---	---	---	4.2	8	.09
30	4.0	11	.12	---	---	---	4.2	12	.14
31	2.6	11	.08	---	---	---	3.5	11	.10
TOTAL	68.18	---	2.96	327.1	---	27.88	204.9	---	4.94

BEST DOCUMENT AVAILABLE

03070415 STONY FORK NEAR FARMINGTON, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	3.5	12	.11	6.1	11	.18	2.0	7	.04
2	3.2	11	.10	5.0	10	.14	2.0	9	.05
3	2.8	11	.08	4.0	11	.12	2.0	10	.05
4	2.6	10	.07	3.3	11	.10	2.9	21	.25
5	2.7	10	.07	2.8	10	.08	3.3	11	.10
6	2.4	11	.07	2.6	11	.08	19	44	3.6
7	1.8	9	.04	2.0	12	.06	14	15	.57
8	1.6	6	.03	1.5	12	.05	9.0	12	.29
9	1.7	7	.03	1.3	12	.04	13	17	.63
10	1.5	7	.03	1.3	10	.04	32	38	4.0
11	5.0	47	1.6	1.5	11	.04	17	15	.69
12	52	176	42	1.3	11	.04	10	11	.30
13	68	68	15	1.1	10	.03	7.9	18	.52
14	40	51	5.7	1.0	11	.03	21	38	2.9
15	27	25	1.8	11	26	.84	14	18	.68
16	15	20	.81	7.8	12	.25	9.0	15	.36
17	11	14	.42	5.6	10	.15	6.1	13	.21
18	49	109	23	5.0	12	.16	3.6	12	.12
19	23	21	1.3	9.0	16	.39	2.4	11	.07
20	14	18	.68	9.2	15	.37	2.3	9	.06
21	9.2	14	.35	6.9	12	.22	1.8	7	.03
22	6.7	10	.18	5.6	8	.12	2.8	10	.08
23	7.8	15	.36	4.0	6	.06	1.6	14	.06
24	14	21	.80	2.9	6	.05	1.3	12	.04
25	18	21	1.0	2.2	5	.03	2.1	15	.09
26	13	13	.46	2.1	9	.08	1.8	9	.04
27	10	11	.30	3.0	8	.06	1.1	8	.02
28	7.3	10	.20	2.4	8	.05	.92	5	.01
29	7.3	14	.31	2.1	6	.03	1.1	3	.00
30	6.9	12	.22	2.0	8	.04	1.4	23	.29
31	---	---	---	2.8	11	.08	---	---	---
TOTAL	428.0	---	97.12	118.4	---	4.01	208.42	---	16.15

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	2.0	20	.11	.63	1	.00	.58	8	.01
2	1.1	12	.04	.53	2	.00	1.1	20	.13
3	1.0	8	.02	.63	3	.00	1.6	25	.11
4	1.2	7	.02	.53	1	.00	2.9	29	.26
5	.87	6	.01	.40	1	.00	1.3	10	.04
6	.82	5	.01	.43	3	.00	.77	9	.02
7	.63	5	.00	.63	7	.01	.58	8	.01
8	.53	5	.00	.43	7	.00	.87	11	.03
9	.43	6	.00	.32	8	.00	.72	7	.01
10	.40	6	.00	.24	11	.00	.53	8	.01
11	.35	7	.00	.19	8	.00	.38	8	.00
12	.40	8	.00	.19	17	.00	.35	12	.01
13	.38	12	.01	.16	13	.00	.32	8	.00
14	.38	11	.01	.16	10	.00	.32	13	.03
15	.24	10	.00	.24	21	.05	12	40	1.6
16	.24	10	.00	1.2	18	.09	14	12	.45
17	.24	9	.00	.30	11	.00	7.3	6	.12
18	.16	8	.00	.27	10	.00	4.2	7	.08
19	.15	7	.00	.15	8	.00	2.6	6	.04
20	.58	15	.05	.14	11	.00	1.9	6	.03
21	.87	13	.03	.13	14	.00	1.3	5	.02
22	.72	11	.02	.12	16	.00	1.1	5	.01
23	.38	9	.00	.11	14	.00	.87	5	.01
24	.35	9	.00	.10	13	.00	.72	5	.00
25	.32	8	.00	.11	14	.00	.68	5	.00
26	.40	12	.02	.10	15	.00	.58	4	.00
27	1.3	19	.10	.10	15	.00	.48	4	.00
28	2.0	18	.13	.09	16	.00	.40	4	.00
29	2.6	12	.08	.09	15	.00	.40	5	.00
30	1.2	5	.02	.19	12	.00	.40	7	.00
31	.77	1	.00	.32	11	.00	---	---	---
TOTAL	23.01	---	0.68	9.23	---	0.15	61.25	---	3.03
YEAR	1729.76		172.16						

03070420 STONY FORK TRIBUTARY NEAR GIBBON GLADE, PA.

LOCATION.--Lat 39°45'51", long 79°35'16", Fayette County, Hydrologic Unit 05020004, on left bank 1.5 mi (2.4 km) upstream from mouth, 1.7 mi (2.7 km) north of Gibbon Glade, and 3.2 mi (5.1 km) southwest of Farmington.

DRAINAGE AREA.--0.93 mi^2 (2.41 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1977 to current year.

GAGE.--Water-stage recorder and V-notch wooden weir. Altitude of gage is 1,750 ft (533 m) from topographic map.

REMARKS.--Records good except those for winter periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 126 ft^3/s (3.57 m^3/s) July 16, 1978, gage height, 3.61 ft (1.100 m); no flow part of Aug. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 25 ft^3/s (0.71 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Apr. 12	0400	27	0.76	2.24	0.683	Apr. 18	0515	63	1.78	2.86	0.872
Apr. 12	1600	34	0.96	2.39	0.728	June 6	1215	25	0.71	2.20	0.671
Apr. 12	2100	*114	3.23	*3.48	1.061	June 14	1100	36	1.02	2.42	0.738

Minimum daily discharge, 0.02 ft^3/s (0.001 m^3/s) Aug. 22, 25-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.47	1.7	.68	2.8	8.3	1.3	1.6	.74	.69	.19	.25
2	.11	.35	2.8	.66	10	4.7	1.1	1.3	.72	.55	.15	.98
3	.11	.27	2.8	.63	5.1	3.7	.99	1.2	.92	.51	.25	.47
4	.22	.47	2.0	.59	3.2	2.8	.98	1.1	.96	.46	.23	1.3
5	.16	.27	1.7	.55	2.5	4.7	.97	.96	.91	.44	.18	.44
6	.14	.22	1.5	.52	1.6	3.1	.86	1.0	8.8	.39	.36	.22
7	.11	.20	1.4	.52	1.4	2.4	.78	.86	4.7	.31	.26	.14
8	.10	.67	1.2	.51	1.3	2.0	.76	.77	2.4	.25	.23	.39
9	.08	.54	3.6	.50	1.4	1.8	.78	.71	4.6	.22	.18	.20
10	.06	.49	3.6	.50	1.6	1.7	.70	.67	11	.19	.15	.11
11	.08	.39	2.6	.49	6.7	1.6	2.4	.87	5.0	.14	.15	.08
12	.06	.35	2.0	.49	4.4	2.2	26	.80	2.8	.13	.10	.07
13	.04	.35	1.7	.49	2.5	2.8	17	.69	2.5	.28	.06	.06
14	.04	.35	1.4	.49	1.7	2.8	12	.76	9.3	.18	.04	.05
15	.04	.32	1.1	.49	2.1	2.3	7.5	5.7	4.9	.11	.33	4.0
16	.03	.39	.98	.49	3.7	3.5	4.4	2.9	2.8	.11	.45	4.0
17	.03	3.4	.90	.47	7.0	2.9	3.4	2.1	1.9	.09	.09	1.5
18	.08	5.8	.82	.47	9.6	2.5	14	1.8	1.3	.07	.05	.89
19	.07	2.2	.72	.47	8.3	2.0	6.1	3.7	.99	.06	.04	.70
20	.04	1.4	.67	.50	14	1.6	3.9	3.4	1.0	.40	.04	.57
21	.06	1.1	.62	.56	12	1.4	2.6	2.4	1.0	.79	.03	.47
22	.06	.90	.60	.60	6.6	1.4	2.0	1.8	1.2	.39	.02	.42
23	.05	.82	.55	.62	5.9	1.9	3.4	1.5	.68	.15	.03	.31
24	.05	9.4	.52	.60	5.2	1.8	5.9	1.5	.57	.16	.03	.22
25	2.0	6.5	.50	.64	3.7	1.7	6.2	1.3	1.5	.11	.02	.18
26	1.3	3.4	.48	1.8	2.7	1.5	3.9	1.2	.91	.25	.02	.16
27	.70	2.4	.46	3.4	2.1	1.9	2.9	1.0	.68	.43	.02	.14
28	1.0	2.0	.44	2.4	7.2	1.6	2.2	.98	.56	1.3	.02	.11
29	.70	1.7	.60	1.5	---	1.5	2.0	.81	.50	.99	.02	.10
30	.58	1.5	.67	.96	---	1.4	1.7	.92	1.1	.43	.06	.10
31	.58	---	.67	.80	---	1.2	---	.94	---	.28	.12	---
TOTAL	8.81	48.62	41.30	24.39	136.3	76.7	138.72	47.24	76.94	10.86	3.92	18.63
MEAN	.28	1.62	1.33	.79	4.87	2.47	4.62	1.52	2.56	.35	.13	.62
MAX	2.0	9.4	3.6	3.4	14	8.3	26	5.7	11	1.3	.45	4.0
MIN	.03	.20	.44	.47	1.3	1.2	.70	.67	.50	.06	.02	.05
CFSM	.30	1.74	1.43	.85	5.24	2.66	4.97	1.63	2.75	.38	.14	.67
IN.	.35	1.94	1.65	.97	5.45	3.06	5.54	1.89	3.07	.43	.16	.74

CAL YR 1980 TOTAL 559.03 MEAN 1.53 MAX 15 MIN .03 CFSM 1.65 IN 22.34
WTR YR 1981 TOTAL 632.43 MEAN 1.73 MAX 26 MIN .02 CFSM 1.86 IN 25.27

03070420 STONY FORK TRIBUTARY NEAR GIBBON GLADE, PA.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1977 to current year.
pH: October 1977 to current year.
WATER TEMPERATURES: October 1977 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1977 to current year.

INSTRUMENTATION.--Water-quality monitor and sediment pumping sampler since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 521 micromhos Dec. 29, 1980; minimum, 29 micromhos Feb. 2, 1978.
pH: Maximum, 7.9 Sept. 29, 1980; minimum, 5.8 Oct. 2, 1979.
WATER TEMPERATURES: Maximum, 27.5°C July 20, 1980; minimum, 0.0°C on many days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily, 885 mg/L Apr. 12, 1981; minimum daily, 2 mg/L Oct. 25, 26, 27, 1979.
SEDIMENT DISCHARGES: Maximum daily, 110 tons (96 tonnes) Apr. 12, 1981; minimum daily, 0.0 ton (0.0 tonne) on many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 521 micromhos Dec. 29; minimum, 50 micromhos June 7 and Sept. 19.
pH: Maximum, 7.6 Aug. 28, 29; minimum, 5.9 Mar. 14.
WATER TEMPERATURES: Maximum, 24.5°C Aug. 5, 22; minimum 0.5°C on many days during January through February.
SEDIMENT CONCENTRATIONS: Maximum daily, 885 mg/L Apr. 12; minimum daily, 4 mg/L July 9.
SEDIMENT DISCHARGES: Maximum daily, 110 tons (96 tonnes) Apr. 12; minimum daily, 0.0 ton (0.0 tonne) on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
OCT										
21...	1345	9813	.06	120	7.6	11.0	6.0	36	6.0	170
NOV										
05...	1300	9813	.27	100	7.4	6.0	4.0	22	11	310
DEC										
17...	1200	9813	1.2	65	7.6	2.0	4.0	11	8.0	70
JAN										
30...	1130	9813	.80	70	6.4	.0	6.0	9	16	360
FEB										
18...	1135	9813	9.0	75	6.2	7.0	5.0	8	10	1400
MAR										
26...	0900	9813	1.4	72	6.4	4.0	3.0	6	12	200
APR										
24...	1400	9813	7.2	75	6.0	8.0	7.0	16	11	1400
MAY										
29...	1140	9813	.90	85	7.1	13.0	5.0	17	7.0	390
JUN										
16...	1115	9813	3.0	70	7.1	20.0	6.0	22	8.0	1310
JUL										
27...	1230	9813	.35	140	6.8	22.0	7.0	36	12	450
AUG										
28...	1130	9813	.02	170	7.0	19.0	8.0	43	8.0	360
SEP										
25...	1200	9813	.20	93	6.9	11.5	--	--	16	50

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT									
21...	50	990	470	180	20	30	30	11	.00
NOV									
05...	<50	910	260	180	100	20	20	10	.01
DEC									
17...	50	330	210	120	340	20	20	--	--
JAN									
30...	50	560	110	90	160	30	20	12	.03
FEB									
18...	133	2400	120	140	100	30	20	170	4.1
MAR									
26...	150	490	90	60	60	20	20	19	.07
APR									
24...	200	2380	300	170	210	100	40	97	1.9
MAY									
29...	56	700	180	110	90	20	10	10	.02
JUN									
16...	150	3550	350	340	260	60	30	50	.40
JUL									
27...	50	1830	510	250	510	50	20	65	.06
AUG									
28...	110	1640	150	370	350	20	10	25	.00
SEP									
25...	50	570	240	160	130	20	20	6	.00

03070420 STONY FORK TRIBUTARY NEAR GIBBON GLADE, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	143	89	104	111	108	110	81	70	76	99	74	79
2	142	90	102	115	111	113	106	65	73	75	71	73
3	171	92	102	118	114	116	70	59	63	94	70	73
4	124	101	109	119	116	118	62	57	59	73	70	71
5	132	99	109	121	85	103	60	57	59	98	69	73
6	116	97	104	118	85	91	69	59	64	72	66	69
7	146	96	104	103	86	89	79	63	69	91	65	68
8	145	96	110	126	90	101	---	---	---	69	66	68
9	143	91	107	123	88	99	---	---	---	98	66	70
10	143	97	110	108	90	95	---	---	---	76	66	68
11	136	95	104	91	84	86	60	58	59	99	67	70
12	156	102	114	101	82	86	66	59	61	76	68	69
13	124	101	108	91	79	84	63	60	61	102	67	71
14	177	100	121	108	80	86	67	60	61	77	67	68
15	114	102	108	86	81	83	65	58	60	97	67	71
16	159	105	117	98	86	89	71	60	62	71	68	70
17	127	100	108	110	82	89	63	61	62	102	69	74
18	164	114	136	80	69	74	78	61	64	78	71	72
19	139	109	121	69	66	67	78	65	72	110	71	85
20	150	109	118	71	64	66	85	66	71	125	78	97
21	126	101	111	70	64	66	73	66	70	175	95	127
22	149	105	120	70	66	67	95	62	69	141	100	113
23	122	101	111	86	65	68	104	61	64	124	88	94
24	169	114	131	117	67	86	80	62	64	95	84	88
25	178	107	125	68	60	64	67	63	65	177	84	115
26	107	97	101	59	56	58	85	64	68	185	103	137
27	102	93	96	72	58	61	73	64	66	135	95	106
28	123	95	109	72	65	67	91	65	72	95	81	85
29	105	95	99	67	62	65	521	77	194	83	69	75
30	105	100	103	117	66	82	183	99	128	72	63	69
31	108	105	106	---	---	---	99	81	88	81	62	67
MONTH	178	89	111	126	56	84	521	57	73	185	62	82

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	114	61	77	93	77	82	106	64	74	80	65	69
2	92	67	74	89	74	78	72	66	68	67	64	65
3	68	64	66	148	75	92	80	60	66	70	63	65
4	73	62	66	139	80	90	76	60	66	66	63	64
5	---	---	---	153	72	89	80	64	68	76	64	68
6	---	---	---	80	72	74	118	64	88	84	71	75
7	161	57	88	72	64	68	136	98	114	87	69	73
8	97	70	79	76	64	64	134	102	112	72	65	68
9	71	65	68	76	64	68	154	106	114	82	61	69
10	347	62	91	82	68	74	136	108	120	70	66	68
11	332	102	161	96	62	80	270	124	170	95	69	81
12	153	77	96	110	76	88	---	---	---	90	76	83
13	97	68	78	90	68	80	---	---	---	86	72	76
14	161	70	97	68	60	62	---	---	---	123	70	74
15	166	79	110	62	58	60	---	---	---	122	68	79
16	150	94	118	94	62	76	---	---	---	71	67	68
17	188	118	145	64	58	60	---	---	---	68	64	65
18	244	78	146	68	54	62	---	---	---	82	64	69
19	173	69	85	60	58	58	---	---	---	97	73	85
20	---	---	---	66	54	58	---	---	---	78	68	71
21	---	---	---	64	56	58	---	---	---	70	65	66
22	---	---	---	88	56	68	---	---	---	67	62	65
23	---	---	---	96	66	74	84	58	66	71	62	64
24	---	---	---	80	64	68	78	64	71	68	63	65
25	---	---	---	66	60	62	71	59	62	74	65	67
26	---	---	---	64	58	60	61	59	60	114	66	72
27	78	72	75	94	58	70	69	60	63	95	77	82
28	194	75	105	70	60	62	64	61	63	103	77	83
29	---	---	---	66	58	62	86	63	66	96	79	80
30	---	---	---	72	64	66	67	64	65	106	75	82
31	---	---	---	63	64	66	---	---	---	104	82	90
MONTH	347	57	96	153	54	70	270	58	83	123	61	73

BEST DOCUMENT AVAILABLE

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	83	75	79	94	80	86	116	100	105	168	123	142
2	96	78	82	92	80	82	111	97	103	212	100	164
3	113	81	93	89	79	83	129	93	105	160	124	135
4	101	85	90	101	84	87	113	101	107	166	121	137
5	121	84	90	---	---	---	149	105	116	171	116	119
6	128	80	98	---	---	---	136	101	117	140	113	124
7	80	50	74	---	---	---	140	100	115	133	116	121
8	74	70	71	---	---	---	120	104	112	150	116	129
9	113	74	88	---	---	---	154	109	120	128	116	122
10	120	73	88	---	---	---	127	105	116	153	113	126
11	73	68	70	---	---	---	153	106	130	122	111	116
12	71	68	69	---	---	---	133	100	120	171	109	134
13	95	71	75	---	---	---	151	110	124	139	115	125
14	104	77	87	---	---	---	126	107	115	162	125	139
15	77	72	74	---	---	---	156	95	119	160	92	115
16	81	51	73	---	---	---	120	110	115	107	87	95
17	79	73	75	---	---	---	148	100	121	87	82	84
18	80	74	76	---	---	---	140	100	117	[illegible]	79	81
19	80	75	77	---	---	---	160	107	129	85	50	81
20	100	77	84	---	---	---	151	113	125	97	74	85
21	116	78	85	---	---	---	159	125	137	90	84	85
22	116	85	93	125	112	116	236	141	174	99	85	89
23	86	82	84	120	107	112	172	144	156	90	85	88
24	90	83	86	134	100	113	207	149	176	116	88	87
25	119	85	101	126	105	117	195	150	178	99	76	90
26	99	85	89	172	92	125	195	167	180	129	88	98
27	89	83	85	148	116	130	182	151	162	100	92	96
28	95	82	84	142	96	122	198	154	175	148	93	107
29	96	82	85	130	102	110	196	150	182	100	91	97
30	121	85	92	108	98	103	285	100	169	144	94	106
31	---	---	---	114	97	102	192	125	156	---	---	---
MONTH	128	50	83	172	79	106	285	93	135	212	50	111

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.1	6.9	7.0	6.9	6.8	6.8	6.5	6.4	6.5	6.7	6.7	6.7
2	7.0	6.9	7.0	6.9	6.8	6.8	6.7	6.4	6.4	6.7	6.7	6.7
3	7.0	6.9	7.0	6.8	6.7	6.8	6.5	6.4	6.4	6.8	6.7	6.7
4	7.2	7.0	7.0	6.9	6.6	6.7	6.4	6.4	6.4	6.8	6.7	6.7
5	7.1	6.9	7.1	6.9	6.7	6.8	6.4	6.4	6.4	6.9	6.6	6.6
6	7.1	6.9	7.0	6.9	6.9	6.9	6.5	6.4	6.5	6.6	6.5	6.6
7	7.0	6.9	7.0	7.2	6.7	6.9	6.6	6.5	6.5	6.7	6.6	6.7
8	7.0	6.9	7.0	7.0	6.8	6.8	---	---	---	6.7	6.7	6.7
9	7.0	6.9	7.0	6.9	6.7	6.8	---	---	---	6.7	6.7	6.7
10	7.0	6.9	7.0	6.9	6.8	6.8	6.3	6.3	6.3	6.7	6.7	6.7
11	7.0	6.9	7.0	6.8	6.8	6.8	6.4	6.3	6.4	6.8	6.7	6.7
12	7.0	6.8	6.9	6.8	6.8	6.8	6.5	6.4	6.4	6.7	6.7	6.7
13	7.1	6.8	6.9	6.9	6.8	6.8	6.5	6.4	6.5	6.7	6.7	6.7
14	7.0	6.9	7.0	6.8	6.8	6.8	6.5	6.5	6.5	6.7	6.7	6.7
15	7.0	6.8	6.9	6.8	6.7	6.8	6.5	6.5	6.5	6.8	6.7	6.7
16	6.9	6.8	6.8	6.9	6.8	6.9	6.6	6.5	6.5	6.8	6.7	6.7
17	7.0	6.8	6.9	6.9	6.4	6.8	6.6	6.5	6.6	6.8	6.7	6.7
18	7.0	6.6	6.8	6.5	6.3	6.4	6.6	6.5	6.6	6.8	6.7	6.7
19	6.9	6.6	6.8	6.6	6.5	6.5	6.7	6.5	6.6	7.1	6.7	6.7
20	7.0	6.7	6.9	6.6	6.5	6.6	6.8	6.4	6.6	6.8	6.7	6.8
21	7.2	6.6	6.9	6.7	6.5	6.5	6.5	6.3	6.4	6.8	6.7	6.8
22	7.1	6.8	7.0	6.6	6.5	6.5	6.9	6.4	6.5	6.8	6.3	6.8
23	7.3	6.9	7.1	6.7	6.5	6.6	6.9	6.4	6.5	6.8	6.7	6.7
24	7.3	7.0	7.1	6.6	6.1	6.3	6.6	6.6	6.6	6.7	6.7	6.7
25	7.1	6.7	6.8	6.3	6.1	6.2	6.6	6.6	6.6	6.9	6.7	6.7
26	7.0	6.8	6.9	6.3	6.2	6.3	6.9	6.6	6.6	6.8	6.5	6.7
27	7.0	6.9	7.0	6.5	6.3	6.4	6.7	6.6	6.6	6.5	6.4	6.5
28	7.1	7.0	7.0	6.5	6.4	6.4	6.7	6.7	6.7	6.6	6.4	6.5
29	7.2	7.0	7.1	6.5	6.4	6.4	6.9	6.7	6.7	6.7	6.5	6.6
30	7.1	6.9	7.0	6.6	6.5	6.5	6.8	6.7	6.8	6.5	6.4	6.5
31	6.9	6.9	6.9	---	---	---	6.7	6.7	6.7	6.6	6.4	6.5
MONTH	7.3	6.6	7.0	7.2	6.1	6.7	6.9	6.3	6.5	7.1	6.3	6.7

03070420 STONY PORK TRIBUTARY NEAR GIBBON GLADE, PA.--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.7	6.4	6.5	6.2	6.1	6.1	6.6	6.4	6.5	6.5	6.4	6.4
2	6.6	6.4	6.5	6.3	6.2	6.3	6.5	6.4	6.4	6.5	6.4	6.4
3	6.8	6.6	6.7	6.5	6.3	6.4	6.5	6.4	6.4	6.5	6.4	6.4
4	6.9	6.7	6.8	6.5	6.4	6.4	6.5	6.4	6.5	6.5	6.3	6.4
5	---	---	---	---	---	---	6.6	6.4	6.5	6.4	6.3	6.4
6	---	---	---	---	---	---	6.8	6.5	6.6	6.6	6.3	6.5
7	6.6	6.4	6.5	---	---	---	6.8	6.7	6.8	6.5	6.5	6.5
8	6.6	6.5	6.5	---	---	---	6.8	6.8	6.8	6.8	6.5	6.7
9	6.5	6.4	6.5	---	---	---	6.9	6.7	6.8	6.8	6.7	6.8
10	7.1	6.5	6.5	---	---	---	6.8	6.8	6.8	6.8	6.7	6.8
11	6.5	6.2	6.4	---	---	---	---	---	---	7.0	6.7	6.9
12	6.9	6.2	6.4	---	---	---	---	---	---	7.0	6.9	6.9
13	6.4	6.2	6.3	---	---	---	---	---	---	6.9	6.7	6.8
14	6.5	6.4	6.4	6.4	5.9	6.2	---	---	---	7.0	6.7	6.8
15	6.6	6.4	6.4	6.5	6.2	6.4	---	---	---	7.1	6.4	6.5
16	6.5	6.4	6.4	6.6	6.3	6.4	---	---	---	6.6	6.5	6.5
17	---	---	---	6.3	6.2	6.2	---	---	---	6.6	6.5	6.6
18	---	---	---	6.3	6.1	6.2	---	---	---	6.8	6.6	6.6
19	---	---	---	6.2	6.1	6.2	---	---	---	6.8	6.5	6.6
20	---	---	---	6.1	6.1	6.1	---	---	---	6.5	6.4	6.5
21	---	---	---	6.4	6.3	6.3	---	---	---	6.6	6.5	6.5
22	---	---	---	6.5	6.2	6.3	---	---	---	6.6	6.5	6.6
23	---	---	---	6.5	6.3	6.4	6.8	6.2	6.4	6.7	6.6	6.6
24	---	---	---	6.4	6.2	6.3	6.9	6.2	6.5	6.8	6.6	6.7
25	---	---	---	6.4	6.3	6.3	6.3	6.1	6.1	6.8	6.6	6.7
26	---	---	---	6.4	6.3	6.3	6.3	6.2	6.2	7.0	6.6	6.7
27	6.3	6.3	6.3	6.5	6.3	6.4	6.3	6.2	6.3	6.9	6.7	6.8
28	6.6	6.1	6.3	6.4	6.3	6.4	6.4	6.3	6.3	6.9	6.7	6.8
29	---	---	---	6.4	6.4	6.4	6.6	6.3	6.4	6.8	6.7	6.8
30	---	---	---	6.5	6.4	6.4	6.4	6.4	6.4	6.9	6.7	6.8
31	---	---	---	6.5	6.4	6.4	---	---	---	6.9	6.7	6.8
MONTH	7.1	6.1	6.5	6.6	5.9	6.3	6.9	6.1	6.5	7.1	6.3	6.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.8	6.8	6.8	6.8	6.7	6.8	7.2	6.9	7.0	7.0	6.9	7.0
2	6.8	6.7	6.8	6.9	6.8	6.8	7.3	6.9	7.1	7.2	6.7	7.0
3	6.9	6.7	6.8	6.9	6.0	6.8	7.3	6.9	7.0	7.0	6.7	6.8
4	6.8	6.7	6.7	6.9	6.8	6.8	7.4	6.8	7.1	7.0	6.7	6.8
5	6.9	6.8	6.8	---	---	---	7.2	6.8	7.0	6.8	6.7	6.8
6	6.9	6.2	6.4	---	---	---	7.2	6.9	7.0	6.9	6.8	6.8
7	6.5	6.3	4	---	---	---	7.2	6.9	7.0	6.9	6.8	6.8
8	6.6	6.0	6.5	---	---	---	7.1	6.8	7.0	6.9	6.8	6.8
9	6.7	6.5	6.5	---	---	---	7.1	6.8	7.0	6.9	6.8	6.8
10	6.6	6.2	6.4	---	---	---	7.0	6.8	6.9	7.0	6.8	6.9
11	6.4	6.3	6.3	---	---	---	7.0	6.8	6.9	7.2	6.8	7.0
12	6.5	6.3	6.4	---	---	---	7.1	6.8	7.0	7.2	6.9	7.0
13	6.6	6.5	6.5	---	---	---	7.3	6.9	7.1	7.1	6.9	7.0
14	6.5	6.1	6.3	---	---	---	7.3	7.0	7.1	7.1	6.8	7.0
15	6.4	6.2	6.3	---	---	---	7.3	6.6	7.0	6.9	6.4	6.6
16	6.6	6.4	6.5	---	---	---	7.0	6.8	6.9	6.5	6.4	6.4
17	6.6	6.7	6.6	---	---	---	7.1	6.9	7.0	6.7	6.4	6.6
18	6.7	6.6	6.6	---	---	---	7.1	6.9	7.0	6.8	6.7	6.7
19	6.7	6.6	6.6	---	---	---	7.1	6.9	7.0	---	---	---
20	6.8	6.6	6.7	---	---	---	7.1	6.9	7.0	6.9	6.8	6.8
21	6.9	6.7	6.8	---	---	---	7.1	6.9	7.0	6.8	6.8	6.8
22	6.9	6.7	6.8	---	---	---	7.2	6.9	7.0	6.9	6.8	6.8
23	6.8	6.8	6.8	---	---	---	7.3	7.0	7.2	7.0	6.9	6.9
24	6.9	6.8	6.8	---	---	---	7.3	7.0	7.1	7.0	6.9	6.9
25	7.0	6.7	6.8	---	---	---	7.3	7.0	7.1	7.1	6.8	7.0
26	6.8	6.2	6.8	---	---	---	7.2	6.9	7.1	7.1	6.9	7.0
27	6.8	6.8	6.8	---	---	---	7.3	7.0	7.1	7.0	6.9	7.0
28	6.9	6.8	6.8	---	---	---	7.6	6.8	7.2	7.1	6.9	7.0
29	6.9	6.8	6.9	---	---	---	7.6	7.0	7.3	7.1	6.9	7.0
30	6.9	6.4	6.8	---	---	---	7.3	7.0	7.1	7.0	6.9	6.9
31	---	---	---	7.1	6.9	7.0	7.3	6.9	7.0	---	---	---
MONTH	7.0	6.0	6.6	7.1	6.0	6.8	7.6	6.6	7.0	7.2	6.4	6.9

03070420 STONY FORK TRIBUTARY NEAR GIBBON GLADE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.0	11.0	12.0	11.5	9.5	10.5	7.0	3.5	5.5	---	---	---
2	14.0	12.0	13.0	11.0	8.5	9.5	7.0	4.5	5.5	---	---	---
3	14.0	11.5	12.0	13.5	8.0	9.5	4.5	2.5	3.5	---	---	---
4	12.0	9.5	10.5	13.5	12.0	12.5	4.5	1.5	2.5	---	---	---
5	11.5	8.5	10.0	13.0	5.0	9.5	5.0	3.5	4.5	---	---	---
6	10.5	6.0	8.0	7.0	2.5	5.0	6.0	5.0	5.5	---	---	---
7	13.0	8.5	10.0	---	---	---	8.0	6.0	7.0	.5	.5	.5
8	12.0	7.5	9.0	---	---	---	---	---	---	.5	.5	.5
9	14.0	10.5	11.5	---	---	---	---	---	---	.5	.5	.5
10	13.5	9.5	11.5	9.0	4.5	6.5	---	---	---	1.0	.5	.5
11	13.5	11.5	12.5	8.0	2.5	4.0	5.0	4.0	4.5	.5	.5	.5
12	11.0	8.5	9.5	7.5	2.5	4.0	6.0	4.0	4.5	.5	.5	.5
13	10.0	7.5	8.0	9.5	1.5	4.0	6.0	3.0	5.0	.5	.5	.5
14	9.0	5.0	7.0	8.0	3.5	6.0	4.0	1.5	2.5	1.0	.5	1.0
15	11.0	7.0	8.5	6.5	4.5	6.0	3.5	.5	2.0	1.5	.5	1.0
16	11.5	8.0	9.0	9.0	2.0	5.0	3.5	2.0	3.0	1.0	.5	1.0
17	11.0	8.0	9.5	6.0	1.5	3.0	---	---	---	1.0	.5	.5
18	14.0	12.0	13.5	6.5	4.5	5.0	---	---	---	1.0	.5	.5
19	12.5	10.5	11.5	6.0	3.0	4.5	---	---	---	1.0	.5	.5
20	11.0	8.0	8.5	5.0	2.0	3.0	---	---	---	1.5	.5	1.0
21	11.5	8.0	9.5	8.0	1.5	3.0	---	---	---	1.5	1.0	1.0
22	12.5	8.5	9.5	7.0	2.0	4.0	---	---	---	1.5	1.0	1.5
23	10.0	5.0	7.5	6.5	2.0	4.0	---	---	---	2.0	1.0	1.5
24	11.5	6.5	8.5	8.5	5.5	6.5	---	---	---	2.5	.5	1.5
25	9.5	8.0	8.5	7.5	5.0	6.0	---	---	---	1.5	.5	1.0
26	8.0	7.0	7.5	6.0	4.0	5.0	---	---	---	2.5	1.0	1.5
27	10.5	6.5	8.5	6.5	4.5	5.0	---	---	---	3.5	2.0	2.5
28	11.0	9.0	10.0	5.5	4.0	5.0	---	---	---	4.0	1.5	2.5
29	13.0	9.5	11.0	4.0	3.0	3.5	---	---	---	2.5	.5	1.5
30	18.5	9.0	11.5	5.5	3.0	4.0	---	---	---	1.0	.5	.5
31	11.0	8.5	10.0	---	---	---	---	---	---	1.0	.5	.5
MONTH	18.5	5.0	10.0	13.5	1.5	5.5	8.0	.5	4.5	4.0	.5	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	.5	.5	5.5	4.5	5.0	11.5	6.5	8.5	---	---	---
2	4.5	1.0	3.0	5.5	3.0	4.5	15.5	6.5	10.0	---	---	---
3	4.0	3.0	3.5	5.5	1.5	3.0	16.5	5.5	10.0	---	---	---
4	4.0	3.0	3.5	4.5	1.0	3.0	16.0	9.5	12.5	---	---	---
5	---	---	---	4.0	2.5	3.0	11.5	7.0	10.5	---	---	---
6	---	---	---	4.5	2.0	3.0	9.0	4.0	6.5	13.5	8.5	11.5
7	2.5	1.0	2.0	4.0	1.5	2.5	14.5	2.0	7.5	17.5	5.5	10.5
8	2.5	.5	1.5	4.0	2.0	3.0	17.5	4.5	10.0	18.0	5.5	11.0
9	1.0	.5	.5	5.5	2.5	3.5	13.0	7.0	10.5	20.5	7.5	13.0
10	1.0	.5	.5	4.5	2.5	3.5	15.5	4.0	9.5	18.5	10.5	14.5
11	2.5	.5	1.5	4.0	1.5	2.5	17.0	10.0	12.5	18.0	13.5	15.5
12	6.0	.5	1.5	7.5	.5	3.5	---	---	---	13.0	9.0	11.0
13	2.0	.5	1.0	4.0	3.0	3.5	---	---	---	18.5	8.0	12.5
14	3.5	.5	1.5	5.5	1.0	3.0	---	---	---	21.5	10.5	15.5
15	4.5	.5	2.0	8.5	1.5	4.5	---	---	---	14.5	10.5	12.0
16	5.0	1.0	2.5	5.0	1.5	3.5	---	---	---	11.5	9.5	10.5
17	---	---	---	3.5	.5	2.0	---	---	---	15.5	7.5	11.5
18	---	---	---	5.5	.5	2.0	---	---	---	12.0	9.5	10.5
19	---	---	---	3.5	1.0	2.0	---	---	---	10.0	9.0	9.5
20	---	---	---	3.0	.5	1.5	---	---	---	15.5	7.5	11.0
21	---	---	---	4.0	.5	2.0	---	---	---	17.0	7.5	11.5
22	---	---	---	4.5	.5	2.0	---	---	---	17.0	8.5	12.5
23	---	---	---	7.0	1.5	4.0	---	---	---	18.0	9.0	13.0
24	---	---	---	7.0	1.5	4.0	---	---	---	19.5	11.0	15.0
25	---	---	---	7.5	2.0	4.5	---	---	---	19.0	11.5	15.0
26	---	---	---	9.0	1.5	5.0	---	---	---	19.5	13.0	16.0
27	7.0	2.5	4.5	7.5	3.0	5.5	---	---	---	18.0	14.0	15.5
28	6.0	4.0	5.0	12.0	1.5	6.0	---	---	---	19.5	14.0	16.5
29	---	---	---	13.5	3.5	8.0	---	---	---	15.5	14.0	15.0
30	---	---	---	11.0	7.5	9.0	---	---	---	19.5	13.0	16.0
31	---	---	---	17.0	7.3	11.0	---	---	---	19.5	13.5	16.0
MONTH	7.0	.5	2.0	17.0	.5	4.0	17.5	2.0	10.0	21.5	5.5	13.0

03070420 STONY FORK TRIBUTARY NEAR GIBBON GLADE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	15.5	10.5	13.0	20.5	14.5	17.0	22.0	14.5	18.0	21.5	17.5	19.0
2	19.5	13.0	15.5	20.0	15.5	17.5	22.0	15.5	18.5	22.5	18.5	19.5
3	19.5	14.0	16.5	21.0	16.0	18.0	23.5	18.0	20.5	20.5	18.5	19.5
4	17.5	15.5	16.0	21.5	16.0	18.5	24.0	18.0	20.5	20.0	18.5	19.0
5	20.0	14.0	16.5	---	---	---	24.5	19.5	21.5	22.0	17.5	19.5
6	17.0	13.5	15.5	---	---	---	21.0	18.5	19.5	21.0	17.0	18.5
7	16.5	10.0	14.0	---	---	---	22.0	18.0	19.5	21.0	16.5	18.5
8	17.5	11.5	14.5	---	---	---	23.5	18.5	20.5	19.0	17.0	18.0
9	18.5	14.5	16.0	---	---	---	23.5	18.5	20.5	19.0	14.0	16.5
10	16.0	13.5	15.0	---	---	---	23.5	17.0	20.0	18.5	13.0	16.0
11	16.0	12.5	14.0	---	---	---	23.0	17.5	20.0	20.5	14.5	17.0
12	17.5	13.0	14.5	---	---	---	23.0	18.5	20.5	22.0	16.5	19.0
13	18.5	14.5	16.0	---	---	---	22.0	16.5	19.5	21.5	17.0	19.0
14	18.5	14.5	16.0	---	---	---	23.0	17.0	19.5	21.5	16.0	18.5
15	18.0	14.0	16.0	---	---	---	20.5	18.0	19.5	19.0	17.0	18.0
16	19.0	14.5	16.5	---	---	---	22.0	18.0	20.0	17.0	15.0	16.5
17	18.0	14.5	16.0	---	---	---	21.0	10.5	17.0	17.0	13.5	15.5
18	20.5	13.0	16.0	---	---	---	20.0	10.0	16.0	15.5	12.0	13.5
19	21.5	15.0	17.5	---	---	---	20.0	12.0	16.0	14.0	12.5	13.0
20	19.5	16.0	17.0	---	---	---	21.0	12.5	16.5	14.5	12.5	13.0
21	21.0	15.5	17.5	---	---	---	20.0	12.5	16.5	17.5	13.0	14.5
22	21.0	16.0	18.0	22.5	18.0	19.5	24.5	15.5	18.5	14.5	13.0	14.0
23	21.0	14.0	17.0	23.0	15.0	18.5	20.5	13.5	17.0	13.0	11.0	12.0
24	21.5	14.0	17.5	22.5	17.0	19.0	20.5	14.0	17.5	14.5	9.0	12.0
25	21.5	16.5	18.0	23.5	17.0	19.5	20.0	10.0	17.0	15.0	8.5	12.0
26	19.0	14.5	16.5	23.5	18.5	20.5	22.0	14.5	18.0	17.5	12.0	14.5
27	20.5	11.5	15.5	23.0	19.5	21.0	21.5	15.0	18.0	16.5	14.0	15.0
28	21.5	11.5	16.0	23.5	18.5	20.0	23.0	16.5	19.5	15.0	12.0	13.5
29	21.5	12.5	17.0	19.5	16.0	18.5	23.5	17.0	20.5	12.5	8.0	11.0
30	21.5	15.5	17.5	22.5	14.0	18.0	21.5	---	---	14.5	11.0	13.0
31	---	---	---	23.0	14.0	18.0	21.0	15.0	18.5	---	---	---
MONTH	21.5	10.0	16.0	23.5	14.0	19.0	24.5	10.0	19.0	22.5	8.0	16.0

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	.13	20	.00	.47	8	.01	1.7	15	.07
2	.11	15	.00	.35	7	.00	2.8	81	1.2
3	.11	12	.00	.27	9	.00	2.5	16	.12
4	.22	25	.01	.47	9	.01	2.0	14	.08
5	.16	20	.00	.27	10	.00	1.7	15	.07
6	.14	15	.00	.22	12	.00	1.5	18	.07
7	.11	12	.00	.20	15	.00	1.4	15	.06
8	.10	19	.00	.67	62	.16	1.2	16	.05
9	.08	19	.00	.54	17	.02	3.6	39	.36
10	.06	18	.00	.49	14	.02	3.6	25	.24
11	.08	17	.00	.39	13	.01	2.6	20	.14
12	.06	17	.00	.35	12	.01	2.0	20	.11
13	.04	13	.00	.35	14	.01	1.7	16	.07
14	.04	5	.00	.35	13	.01	1.4	13	.05
15	.04	10	.00	.32	12	.01	1.1	11	.03
16	.03	14	.00	.39	15	.02	.98	13	.03
17	.03	11	.00	3.4	203	7.2	.90	15	.04
18	.08	25	.00	5.8	69	1.4	.82	20	.04
19	.07	11	.00	2.2	25	.15	.72	18	.03
20	.04	8	.00	1.4	20	.08	.67	16	.03
21	.06	11	.00	1.1	16	.05	.62	18	.03
22	.06	8	.00	.90	13	.03	.60	20	.03
23	.05	11	.00	.82	15	.03	.55	16	.02
24	.05	15	.00	9.4	190	7.3	.52	17	.02
25	2.0	146	1.5	6.5	35	.61	.50	13	.02
26	1.3	25	.09	3.4	18	.17	.48	13	.02
27	.70	16	.03	2.4	12	.08	.46	12	.01
28	1.0	20	.05	2.0	15	.08	.44	15	.02
29	.70	15	.03	1.7	14	.06	.60	20	.03
30	.58	12	.02	1.5	18	.07	.67	15	.03
31	.58	10	.02	---	---	---	.67	12	.02
TOTAL	8.81	---	1.75	48.62	---	17.60	41.30	---	3.14

03070420 STONY FORK TRIBUTARY NEAR GIBBON GLADE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	.68	14	.03	2.8	103	1.7	8.3	35	.78
2	.66	16	.03	10	334	11	4.7	23	.29
3	.63	13	.02	5.1	30	.41	3.7	18	.18
4	.59	11	.02	3.2	22	.19	2.8	16	.12
5	.55	11	.02	2.5	17	.11	4.7	22	.28
6	.52	10	.01	1.6	15	.06	3.1	20	.17
7	.52	10	.01	1.4	15	.06	2.4	23	.15
8	.51	12	.02	1.3	13	.05	2.0	24	.13
9	.50	10	.01	1.4	11	.04	1.8	22	.11
10	.50	11	.01	1.6	20	.09	1.7	23	.11
11	.49	13	.02	6.7	207	4.4	1.6	19	.08
12	.49	11	.01	4.4	25	.30	2.2	34	.27
13	.49	12	.02	2.5	22	.15	2.8	25	.19
14	.49	9	.01	1.7	20	.09	2.8	22	.17
15	.49	8	.01	2.1	27	.15	2.3	18	.11
16	.49	10	.01	3.7	40	.40	3.5	20	.19
17	.47	12	.02	7.0	178	4.8	2.9	12	.09
18	.47	14	.02	9.6	60	1.6	2.5	15	.10
19	.47	11	.01	8.3	110	3.2	2.0	10	.05
20	.50	9	.01	14	275	13	1.6	12	.05
21	.56	8	.01	12	30	.97	1.4	13	.05
22	.60	8	.01	6.6	25	.45	1.4	15	.06
23	.62	9	.02	5.9	35	.56	1.9	28	.14
24	.60	9	.01	5.2	26	.37	1.8	22	.11
25	.64	12	.02	3.7	23	.23	1.7	20	.09
26	1.8	137	1.2	2.7	20	.15	1.5	19	.08
27	3.4	25	.23	2.1	17	.10	1.9	23	.12
28	2.4	12	.08	7.2	288	11	1.6	17	.07
29	1.5	7	.03	---	---	---	1.5	15	.06
30	.96	12	.03	---	---	---	1.4	16	.06
31	.80	14	.03	---	---	---	1.2	15	.05
TOTAL	24.39	---	1.99	136.3	---	55.63	76.7	---	4.51

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	1.3	22	.08	1.6	30	.13	.74	18	.04
2	1.1	15	.04	1.3	16	.06	.72	16	.03
3	.99	17	.05	1.2	14	.05	.92	30	.07
4	.98	16	.04	1.1	14	.04	.96	25	.06
5	.97	17	.04	.96	18	.05	.91	30	.07
6	.86	19	.04	1.0	16	.04	8.8	402	14
7	.78	16	.03	.86	13	.03	4.7	45	.57
8	.76	17	.03	.77	15	.03	2.4	35	.23
9	.78	19	.04	.71	17	.03	4.6	181	3.4
10	.70	20	.04	.67	20	.04	11	225	9.2
11	2.4	337	12	.87	23	.05	5.0	30	.41
12	26	885	110	.80	11	.02	2.8	27	.20
13	17	125	6.9	.69	14	.03	2.5	100	1.5
14	12	237	11	.76	47	.18	9.3	279	17
15	7.5	45	.91	5.7	188	3.2	4.9	45	.60
16	4.4	35	.42	2.9	30	.23	2.8	30	.23
17	3.4	25	.23	2.1	21	.12	1.9	20	.10
18	14	335	26	1.8	23	.11	1.3	22	.08
19	6.1	30	.49	3.7	42	.49	.99	19	.05
20	3.9	22	.23	3.4	25	.23	1.0	16	.04
21	2.6	16	.11	2.4	21	.14	1.0	22	.06
22	2.0	17	.09	1.8	23	.11	1.2	21	.07
23	3.4	79	1.1	1.5	21	.09	.68	19	.03
24	5.9	62	1.0	1.5	18	.07	.57	15	.02
25	6.2	30	.50	1.3	19	.07	1.5	123	.82
26	3.9	27	.28	1.2	82	.45	.91	24	.06
27	2.9	25	.20	1.0	30	.08	.68	16	.03
28	2.2	22	.13	.98	15	.04	.56	18	.03
29	2.0	25	.14	.81	10	.02	.50	16	.02
30	1.7	18	.08	.92	62	.27	1.1	229	2.2
31	---	---	---	.94	20	.05	---	---	---
TOTAL	138.72	---	172.24	47.24	---	6.55	76.94	---	51.22

03070420 STONY FORK TRIBUTARY NEAR GIBBON GLADE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	.69	25	.05	.19	16	.00	.25	35	.02
2	.55	20	.03	.15	20	.00	.98	140	1.7
3	.51	16	.02	.25	14	.00	.47	30	.04
4	.46	12	.01	.23	15	.00	1.3	103	.62
5	.44	10	.01	.18	12	.00	.44	24	.03
6	.39	9	.00	.36	23	.02	.22	22	.01
7	.31	7	.00	.26	20	.01	.14	20	.00
8	.25	6	.00	.23	12	.00	.39	28	.04
9	.22	4	.00	.18	14	.00	.20	20	.01
10	.19	9	.00	.15	16	.00	.11	14	.00
11	.14	18	.00	.15	11	.00	.08	10	.00
12	.13	19	.00	.10	15	.00	.07	15	.00
13	.28	25	.02	.06	23	.00	.06	17	.00
14	.18	14	.00	.04	18	.00	.05	11	.00
15	.11	15	.00	.33	120	1.0	4.0	222	4.5
16	.11	14	.00	.45	98	.47	4.0	68	1.0
17	.09	13	.00	.09	20	.00	1.5	22	.09
18	.07	9	.00	.05	7	.00	.89	16	.04
19	.06	6	.00	.04	9	.00	.70	13	.02
20	.40	217	.72	.04	10	.00	.57	11	.02
21	.79	178	.87	.03	12	.00	.47	10	.01
22	.39	30	.03	.02	16	.00	.42	12	.01
23	.15	18	.00	.03	18	.00	.31	11	.00
24	.16	21	.00	.03	20	.00	.22	12	.00
25	.11	19	.00	.02	12	.00	.18	6	.00
26	.25	68	.18	.02	6	.00	.16	8	.00
27	.43	35	.04	.02	12	.00	.14	11	.00
28	1.3	218	2.0	.02	21	.00	.11	9	.00
29	.99	40	.11	.02	23	.00	.10	10	.00
30	.43	30	.03	.06	27	.00	.10	10	.00
31	.28	18	.01	.12	30	.00	---	---	---
TOTAL	10.86	---	4.13	3.92	---	1.50	18.63	---	8.16
YEAR	632.43		328.42						

BEST DOCUMENT AVAILABLE

03070430 STONY FORK AT BETHEL CHAPEL, NEAR ELLIOTTSVILLE, PA

LOCATION.--Lat 39°46'54", long 79°35'00", Fayette County, Hydrologic Unit 05020004, at bridge on Legislative Route 26073, 0.3 mi (0.5 km) from State Route 381, and 2.5 mi (4.0 km) northeast of Elliottsville.

DRAINAGE AREA.--4.85 mi^2 (12.6 km^2).

PERIOD OF RECORD.--March 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
OCT										
21...	1300	9813	.92	108	7.4	9.0	6.0	26	9.0	170
NOV										
05...	1220	9813	1.9	85	7.4	6.0	6.0	14	13	150
DEC										
17...	1100	9813	5.3	75	7.5	1.5	4.0	6	13	150
JAN										
30...	1100	9813	4.4	70	7.1	.0	8.0	10	16	200
FEB										
18...	1115	9813	31	60	6.2	5.5	6.0	4	14	650
MAR										
26...	1000	9813	7.3	110	5.5	5.0	10	4	29	330
APR										
24...	1330	9813	29	80	6.1	9.0	6.0	4	25	2260
MAY										
29...	1245	9813	4.8	108	6.0	13.0	8.0	3	30	1240
JUN										
16...	1045	9813	15	125	6.5	20.0	10	4	24	1090
JUL										
27...	1130	9813	2.4	225	6.1	20.0	11	6	78	660
AUG										
28...	1100	9813	.13	290	6.9	18.0	7.0	18	104	100
SEP										
25...	1145	9813	1.2	140	6.6	10.5	6.0	6	42	620

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT									
21...	<10	2080	550	350	330	30	30	8	.02
NOV									
05...	50	770	330	230	230	20	20	2	.01
DEC									
17...	50	350	220	210	190	100	20	--	--
JAN									
30...	<50	340	130	180	170	40	30	1	.01
FEB									
18...	50	910	90	240	220	50	40	36	3.0
MAR									
26...	100	290	210	670	670	70	50	7	.14
APR									
24...	130	1230	140	650	600	80	60	44	3.4
MAY									
29...	150	580	280	1080	1070	80	80	7	.09
JUN									
16...	<100	860	340	1750	1290	120	80	6	.24
JUL									
27...	100	850	420	3430	3400	150	130	9	.06
AUG									
28...	50	940	930	2290	2220	130	20	8	.00
SEP									
25...	50	970	740	1610	1570	100	80	6	.02

03070435 STONY FORK TRIBUTARY NO. 4 NEAR ELLIOTTSVILLE, PA

LOCATION.--Lat 39°46'48", long 79°35'38", Fayette County, Hydrologic Unit 05020004, at culvert on State Route 381, 2.0 mi (3.2 km) northeast of Elliottsville, and 2.4 mi (3.9 km) southwest of Farmington.

DRAINAGE AREA.--0.54 mi^2 (1.40 km^2).

PERIOD OF RECORD.--March 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
OCT										
21...	1220	9813	.10	113	7.5	10.0	6.0	36	5.0	300
NOV										
05...	1200	9813	.22	95	7.2	8.0	4.0	20	14	440
DEC										
17...	1030	9813	.59	80	7.3	1.0	8.0	14	13	--
JAN										
30...	1035	9813	.49	75	6.8	.0	6.0	14	15	150
FEB										
18...	1050	9813	3.5	65	7.1	3.0	12	4	11	500
MAR										
26...	1030	9813	.81	80	6.5	11.0	4.0	12	13	300
APR										
24...	1330	9813	3.2	70	7.1	10.5	3.0	16	12	950
MAY										
29...	1225	9813	.54	85	7.1	18.0	4.0	21	22	390
JUN										
16...	1130	9813	1.6	95	7.3	22.0	8.0	30	46	420
JUL										
27...	1110	9813	.27	120	6.9	23.0	6.0	24	16	590
AUG										
28...	1020	9813	.01	280	6.5	18.0	38	56	52	460
SEP										
25...	1110	9813	.14	125	6.8	14.0	3.0	20	26	330

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT									
21...	30	1990	710	530	400	20	20	21	.01
NOV									
05...	<50	1890	1460	360	270	30	20	23	.01
DEC									
17...	<50	1130	350	320	270	10	<10	--	--
JAN									
30...	50	960	180	460	430	30	20	28	.04
FEB									
18...	50	820	200	220	210	20	20	19	.18
MAR									
26...	180	900	210	240	230	20	10	19	.04
APR									
24...	50	2380	320	350	290	30	20	46	.40
MAY									
29...	100	1550	250	440	350	10	10	25	.04
JUN									
16...	100	680	50	1920	1370	110	50	36	.16
JUL									
27...	50	2520	500	660	480	50	10	42	.03
AUG									
28...	390	8400	6940	2090	2090	40	40	38	.00
SEP									
25...	50	1560	530	370	330	30	20	28	.01

BEST DOCUMENT AVAILABLE

03070455 STONY FORK NEAR ELLIOTTSVILLE, PA

LOCATION.--Lat 39°46'10", long 79°36'34", Fayette County, Hydrologic Unit 05020004, on right bank, 1.3 mi (2.1 km) upstream from mouth and 0.9 mi (1.4 km) east of Elliottsville.

DRAINAGE AREA.--7.44 mi² (19.27 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,630 ft (497 m) from topographic map.

REMARKS.--Records good except those for winter periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 749 ft³/s (21.2 m³/s) Apr. 12, 1981, gage height, 5.09 ft (1.551 m); no flow Aug. 29, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 12	0530	204	5.78	2.81	0.856	Apr. 18	0745	437	12.4	3.88	1.183
Apr. 12	2330	*754	21.4	*5.09	1.551						

Minimum daily discharge, no flow Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	3.1	15	5.5	52	47	9.2	16	7.1	6.4	1.6	2.3
2	1.0	3.1	20	5.3	87	28	8.4	13	7.1	3.7	1.4	5.2
3	1.0	3.7	23	5.0	52	21	7.4	11	7.1	3.2	1.5	7.4
4	1.4	3.5	18	4.9	30	17	6.5	9.3	8.3	3.4	1.4	12
5	1.4	3.5	15	4.7	19	27	6.7	8.7	11	2.8	1.1	5.8
6	1.0	3.2	13	4.6	12	25	6.1	7.7	55	2.6	.93	2.8
7	.84	3.2	12	4.5	11	20	5.3	7.4	34	2.1	.73	1.8
8	.72	5.9	11	4.4	10	16	4.8	6.1	19	1.8	.44	2.4
9	.60	6.2	25	4.3	12	13	5.0	5.2	33	1.7	.44	2.6
10	.52	7.0	28	4.2	14	11	4.5	5.2	83	1.8	5.2	1.4
11	.54	5.3	22	4.1	60	9.0	16	6.1	38	1.6	1.1	1.4
12	.47	4.8	17	3.9	45	7.6	187	6.1	21	1.6	.93	1.0
13	.35	4.8	14	3.8	33	7.0	186	5.2	17	1.4	.63	.83
14	.31	4.0	12	3.7	25	7.0	95	4.9	65	2.4	.49	.63
15	.28	3.8	9.8	3.6	21	14	55	39	34	.55	.39	33
16	.25	3.8	9.4	3.6	20	25	28	22	20	.73	4.6	36
17	.23	18	7.6	3.6	48	23	20	17	16	.83	1.0	16
18	.40	46	7.3	3.6	55	19	143	14	11	.55	.93	11
19	.47	20	6.4	3.6	40	15	43	22	8.3	.49	.73	7.4
20	.33	14	5.9	3.8	98	12	25	26	8.3	1.1	.35	5.2
21	.40	11	5.7	4.3	88	10	18	18	6.7	4.6	.35	3.7
22	.44	8.7	5.4	5.1	45	9.0	15	15	11	4.0	.27	3.0
23	.39	7.3	5.2	4.9	45	12	18	12	7.7	1.6	.27	2.4
24	.36	58	5.0	4.8	36	15	36	9.3	5.8	1.1	.35	2.1
25	17	42	4.9	5.2	27	13	44	7.7	9.0	.83	.11	2.3
26	13	29	4.8	21	22	12	27	7.4	8.3	1.0	.19	1.8
27	6.6	21	4.7	31	16	13	20	12	5.8	4.9	.07	1.5
28	6.3	19	4.6	22	47	11	18	9.3	4.6	6.1	.23	1.6
29	6.3	16	4.8	12	---	11	17	8.0	4.3	9.0	.00	1.4
30	4.0	14	5.3	7.2	---	10	17	7.7	5.2	3.7	.27	1.5
31	3.1	---	5.8	6.4	---	9.2	---	10	---	2.3	.73	---
TOTAL	71.20	392.9	347.6	208.6	1070	488.8	1091.9	368.3	571.6	79.88	28.73	177.46
MEAN	2.30	13.1	11.2	6.73	38.2	15.8	36.4	11.9	19.1	2.58	.93	5.92
MAX	17	58	28	31	98	47	187	39	83	9.0	5.2	36
MIN	.23	3.1	4.6	3.6	10	7.0	4.5	4.9	4.3	.49	.00	.63
CFSM	.31	1.76	1.51	.91	5.13	2.12	4.89	1.60	2.57	.35	.13	.80
IN.	.36	1.96	1.74	1.04	5.35	2.44	5.46	1.84	2.86	.40	.14	.89

CAL YR 1980 TOTAL 4524.03 MEAN 12.4 MAX 115 MIN .23 CFSM 1.67 IN 22.62
WTR YR 1981 TOTAL 4896.97 MEAN 13.4 MAX 187 MIN .00 CFSM 1.80 IN 24.48

03070455 STONY FORK NEAR ELLIOTTSVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1977 to current year.
pH: October 1977 to current year.
WATER TEMPERATURES: October 1977 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1977 to current year.

INSTRUMENTATION.--Water-quality monitor and sediment pumping sampler since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 661 micromhos Aug. 13, 14, 15, 1981; minimum, 34 micromhos Mar. 23, 1979.
pH: Maximum, 7.7 Aug. 4, 5, 7, 1979; minimum, 4.9 Sept. 26, 1981.
WATER TEMPERATURES: Maximum, 24.0°C July 10, 1981; minimum, 0.0°C on many days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily, 633 mg/L Apr. 12, 1981; minimum daily, 1 mg/L on several days.
SEDIMENT DISCHARGES: Maximum daily, 636 tons (553 tonnes) Apr. 12, 1981; minimum daily, 0.0 ton (0.0 tonne) on several days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 661 micromhos Aug. 13, 14, 15; minimum, 52 micromhos Feb. 22.
pH: Maximum, 7.5 Oct. 2, 3; minimum, 4.9 Sept. 26.
WATER TEMPERATURES: Maximum, 24.0°C July 10; minimum 0.0°C on many days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily, 633 mg/L Apr. 12; minimum daily, 1 mg/L on several days.
SEDIMENT DISCHARGES: Maximum daily, 636 tons (553 tonnes) Apr. 12; minimum daily, 0.0 ton (0.0 tonne) on several days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
OCT										
21...	1130	9813	1.5	246	7.5	8.0	4.0	32	60	150
NOV										
05...	1130	9813	3.2	160	7.0	7.0	3.0	18	38	200
DEC										
17...	1025	9813	7.6	90	7.7	3.0	6.0	12	20	100
JAN										
30...	1010	9813	7.2	80	7.6	.0	70	8	18	150
FEB										
18...	1000	9813	47	85	6.0	5.0	5.0	4	20	650
MAR										
26...	1030	9813	11	120	6.7	6.0	3.0	4	35	300
APR										
24...	1230	9813	32	100	6.4	9.5	5.0	6	28	1270
MAY										
29...	1115	9813	7.7	135	6.9	14.0	4.0	7	38	360
JUN										
16...	1045	9813	22	140	7.2	19.5	3.0	5	110	2570
JUL										
27...	1040	9813	7.4	205	6.7	20.0	5.0	12	330	6100
AUG										
28...	1015	9813	.14	360	6.5	18.0	6.0	8	145	100
SEP										
25...	1000	9813	2.0	190	6.7	9.5	2.0	12	127	80

03070455 STONY FORK NEAR ELLIOTTSVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 21...	<10	680	210	60	40	10	10	5	.02
NOV 05...	<50	570	400	270	260	30	30	4	.03
DEC 17...	<50	310	120	390	350	80	30	--	--
JAN 30...	<50	290	110	210	210	40	30	1	.02
FEB 18...	50	1230	320	480	460	50	40	35	4.4
MAR 26...	150	320	210	1080	1040	100	50	4	.12
APR 24...	50	1720	140	950	840	100	60	55	4.8
MAY 29...	<100	440	60	1250	1200	60	50	6	.12
JUN 16...	660	3090	770	3210	2590	170	130	10	.59
JUL 27...	100	1650	130	1690	1670	70	60	121	2.4
AUG 28...	<10	240	20	700	700	30	20	17	.01
SEP 25...	50	180	40	2610	2550	60	50	4	.02

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER MAX	OCTOBER MIN	OCTOBER MEAN	NOVEMBER MAX	NOVEMBER MIN	NOVEMBER MEAN	DECEMBER MAX	DECEMBER MIN	DECEMBER MEAN	JANUARY MAX	JANUARY MIN	JANUARY MEAN
1	103	97	99	107	105	106	190	78	109	91	80	86
2	441	101	191	109	104	106	188	72	101	86	78	80
3	446	229	334	108	105	106	151	77	98	80	78	79
4	228	213	222	323	106	192	155	70	87	82	78	80
5	---	---	---	213	144	173	201	69	95	87	81	85
6	---	---	---	159	112	124	82	68	71	89	84	87
7	---	---	---	198	109	129	76	68	71	84	72	78
8	---	---	---	198	112	143	241	54	119	82	72	76
9	---	---	---	112	101	103	177	80	107	82	77	79
10	---	---	---	107	99	102	131	73	92	81	78	80
11	---	---	---	264	102	159	146	68	91	82	78	80
12	---	---	---	107	100	102	160	69	92	85	80	82
13	---	---	---	101	99	100	78	67	70	88	85	86
14	---	---	---	102	98	100	73	69	70	91	82	86
15	---	---	---	101	98	99	232	69	93	84	81	82
16	---	---	---	100	97	99	245	72	126	85	80	83
17	---	---	---	238	91	103	228	65	101	91	84	87
18	---	---	---	105	74	86	472	65	136	97	90	93
19	---	---	---	79	76	77	465	76	219	99	85	91
20	---	---	---	78	73	74	420	89	157	92	87	89
21	---	---	---	191	72	103	106	91	100	96	88	92
22	219	214	216	126	74	79	115	101	104	366	93	143
23	321	216	255	76	74	75	565	95	257	366	94	200
24	322	287	301	101	70	81	557	84	224	93	87	89
25	287	106	191	71	66	68	240	83	98	92	85	89
26	113	107	111	68	61	64	98	85	91	105	87	93
27	273	111	133	68	62	64	102	93	96	100	77	86
28	301	119	212	71	67	68	99	96	97	78	70	74
29	220	107	122	70	67	68	613	93	189	70	66	68
30	121	107	112	85	67	72	556	104	258	71	66	68
31	238	107	143	---	---	---	395	91	133	73	67	70
MONTH	446	97	189	323	61	101	613	54	121	366	66	88

03070455 STONY FORK NEAR ELLIOTTSVILLE, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	77	67	70	---	---	---	172	126	158	111	105	108
2	74	56	62	---	---	---	202	126	150	114	110	112
3	78	53	59	---	---	---	234	144	206	120	114	117
4	108	79	91	---	---	---	234	128	150	127	120	123
5	118	57	87	---	---	---	128	124	126	134	127	130
6	61	58	59	77	74	76	---	---	---	138	134	136
7	---	---	---	80	77	78	---	---	---	145	134	140
8	---	---	---	85	79	82	---	---	---	229	145	155
9	---	---	---	91	84	87	---	---	---	256	166	200
10	---	---	---	95	89	92	---	---	---	226	168	179
11	---	---	---	100	95	96	---	---	---	170	148	164
12	---	---	---	101	93	99	---	---	---	156	147	152
13	---	---	---	96	86	92	---	---	---	162	154	158
14	---	---	---	86	81	83	---	---	---	169	155	165
15	---	---	---	85	82	83	74	71	72	159	86	107
16	---	---	---	90	81	85	80	73	76	92	87	89
17	---	---	---	81	77	79	91	80	85	93	90	91
18	---	---	---	88	76	81	92	59	69	100	93	96
19	82	57	65	88	82	85	77	68	72	134	100	117
20	81	58	68	102	88	96	107	78	88	100	89	92
21	72	58	64	112	102	106	136	107	119	93	87	89
22	60	52	56	128	108	116	146	120	125	93	90	91
23	66	56	60	116	106	114	140	109	122	101	93	98
24	65	60	61	108	106	106	111	95	101	110	101	106
25	67	62	64	106	106	106	98	86	89	119	110	116
26	---	---	---	108	106	108	90	86	87	128	119	124
27	---	---	---	112	104	108	124	89	101	132	106	115
28	---	---	---	114	108	108	133	100	109	123	113	118
29	---	---	---	110	108	110	142	104	113	124	115	121
30	---	---	---	158	110	116	110	104	105	129	123	126
31	---	---	---	172	120	146	---	---	---	130	120	123
MONTH	118	52	67	172	74	98	234	59	111	256	86	124

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	131	123	128	---	---	---	186	173	179	268	196	221
2	157	127	132	---	---	---	195	184	188	215	138	195
3	172	136	159	---	---	---	195	188	193	200	139	168
4	137	117	133	---	---	---	204	183	190	268	159	205
5	119	111	114	---	---	---	212	203	206	217	155	161
6	---	---	---	---	---	---	212	206	209	163	155	159
7	---	---	---	---	---	---	212	188	198	172	162	166
8	---	---	---	---	---	---	201	188	195	175	168	172
9	---	---	---	293	244	258	234	201	209	184	154	161
10	---	---	---	403	278	315	303	235	263	516	207	345
11	---	---	---	444	370	396	364	304	336	204	191	198
12	---	---	---	528	440	473	570	364	404	628	196	454
13	94	83	86	534	435	502	661	520	592	526	248	350
14	94	76	82	429	239	303	661	659	660	248	233	241
15	80	78	78	442	242	288	661	425	605	233	104	150
16	89	80	83	488	424	468	488	159	220	124	114	117
17	98	87	92	421	334	364	209	184	195	122	116	120
18	110	98	104	431	346	400	222	210	215	238	116	141
19	138	111	128	409	363	393	612	220	327	287	121	170
20	149	135	143	363	309	340	659	562	639	287	128	148
21	158	139	151	311	169	201	553	406	491	141	131	135
22	159	129	143	518	156	248	405	346	376	153	141	146
23	153	132	144	520	219	341	344	319	328	158	150	153
24	210	153	172	635	257	448	318	307	311	169	158	162
25	229	164	200	257	160	239	338	307	319	513	170	340
26	168	156	162	251	218	233	347	337	340	512	265	375
27	173	167	170	251	190	224	354	345	347	295	206	229
28	186	172	179	237	158	207	379	353	365	212	205	209
29	190	179	184	329	148	204	378	362	373	296	202	219
30	196	161	190	343	166	208	384	323	360	463	272	370
31	---	---	---	174	165	170	385	275	352	---	---	---
MONTH	229	76	137	635	148	314	661	159	329	628	104	213

03070455 STONY FORK NEAR ELLIOTTSVILLE, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.3	7.2	7.2	6.8	6.7	6.7	6.7	6.0	6.5	6.6	6.6	6.6
2	7.5	7.2	7.3	6.8	6.7	6.8	6.5	6.1	6.4	6.6	6.5	6.6
3	7.5	7.3	7.4	6.8	6.8	6.8	6.7	6.2	6.5	6.6	6.5	6.5
4	7.3	7.2	7.3	7.0	6.7	6.8	6.5	6.1	6.4	6.5	6.4	6.4
5	---	---	---	6.9	6.8	6.8	6.8	6.4	6.5	6.4	6.4	6.4
6	---	---	---	6.8	6.8	6.8	6.4	6.4	6.4	6.4	6.3	6.3
7	---	---	---	6.8	6.8	6.8	6.5	6.4	6.4	6.4	6.3	6.4
8	---	---	---	6.8	6.7	6.7	6.7	6.4	6.5	6.4	6.4	6.4
9	---	---	---	6.7	6.7	6.7	6.9	6.4	6.6	6.4	6.4	6.4
10	---	---	---	6.8	6.7	6.7	6.6	6.4	6.5	6.4	6.4	6.4
11	---	---	---	6.9	6.8	6.8	6.6	6.4	6.5	6.5	6.4	6.4
12	---	---	---	6.8	6.8	6.8	6.7	6.4	6.5	6.5	6.4	6.4
13	---	---	---	6.8	6.7	6.8	6.4	6.4	6.4	6.4	6.4	6.4
14	---	---	---	6.8	6.7	6.7	6.5	6.4	6.4	6.4	6.4	6.4
15	---	---	---	6.7	6.7	6.7	6.7	6.4	6.5	6.4	6.4	6.4
16	---	---	---	6.8	6.7	6.8	6.7	6.3	6.5	6.5	6.4	6.4
17	---	---	---	6.8	6.5	6.8	6.6	6.5	6.5	6.5	6.4	6.4
18	---	---	---	6.5	6.3	6.4	6.8	6.5	6.6	6.5	6.4	6.5
19	---	---	---	6.4	6.4	6.4	6.9	6.5	6.6	6.6	6.4	6.5
20	---	---	---	6.5	6.4	6.5	6.8	6.5	6.5	6.5	6.5	6.5
21	---	---	---	6.9	6.3	6.6	6.5	6.4	6.4	6.5	6.5	6.5
22	7.2	7.1	7.1	6.7	6.5	6.5	6.5	6.4	6.4	7.0	6.5	6.6
23	7.3	7.0	7.1	6.5	6.5	6.5	6.8	6.4	6.5	7.0	6.6	6.7
24	7.1	7.0	7.1	6.5	6.2	6.3	6.8	6.5	6.6	6.6	6.6	6.6
25	7.0	6.6	6.8	6.3	6.2	6.3	6.6	6.4	6.5	6.6	6.5	6.6
26	6.6	6.6	6.6	6.3	6.3	6.3	6.4	6.4	6.4	6.6	6.5	6.6
27	6.9	6.6	6.7	6.4	6.3	6.3	6.4	6.4	6.4	6.6	6.5	6.5
28	7.0	6.7	6.8	6.4	6.4	6.4	6.4	6.4	6.4	6.5	6.4	6.4
29	6.9	6.7	6.7	6.5	6.4	6.4	6.8	6.4	6.5	6.4	6.4	6.4
30	6.8	6.7	6.8	6.5	6.4	6.4	6.9	6.5	6.7	6.5	6.4	6.4
31	6.8	6.7	6.8	---	---	---	6.8	6.6	6.6	6.4	6.3	6.4
MONTH	7.5	6.6	7.0	7.0	6.2	6.6	6.9	6.0	6.5	7.0	6.3	6.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.4	6.3	6.3	6.1	5.7	5.9	6.8	6.3	6.5	6.1	6.0	6.0
2	6.4	6.0	6.2	6.1	6.1	6.1	6.7	6.3	6.5	6.1	5.9	6.0
3	6.6	5.9	6.2	6.2	6.1	6.2	6.8	6.4	6.6	5.9	5.8	5.9
4	6.4	5.7	6.0	6.2	6.2	6.2	6.8	6.3	6.4	5.8	5.7	5.8
5	6.1	5.6	5.9	6.4	6.2	6.3	6.3	6.2	6.2	5.9	5.6	5.7
6	6.2	6.1	6.2	6.3	6.2	6.2	---	---	---	5.8	5.6	5.7
7	---	---	---	6.2	6.2	6.2	---	---	---	5.8	5.6	5.7
8	---	---	---	6.2	6.2	6.2	---	---	---	6.2	5.3	5.5
9	---	---	---	6.3	6.2	6.2	---	---	---	6.3	5.4	5.8
10	---	---	---	6.3	6.2	6.2	---	---	---	6.0	5.3	5.5
11	---	---	---	6.3	6.2	6.3	---	---	---	5.6	5.3	5.4
12	---	---	---	6.5	6.2	6.3	---	---	---	5.8	5.6	5.7
13	---	---	---	6.5	6.3	6.4	---	---	---	5.8	5.6	5.7
14	---	---	---	6.3	6.2	6.2	---	---	---	5.9	5.5	5.6
15	---	---	---	6.2	6.1	6.2	5.7	5.4	5.6	6.3	5.7	6.0
16	---	---	---	6.4	6.2	6.3	5.9	5.7	5.8	6.0	5.9	6.0
17	---	---	---	6.3	6.1	6.2	6.0	5.9	5.9	6.0	5.9	6.0
18	---	---	---	6.2	6.0	6.2	6.5	5.6	5.8	6.0	5.9	6.0
19	6.2	6.0	6.0	6.2	6.1	6.2	5.9	5.8	5.9	6.3	5.7	6.1
20	6.2	6.0	6.1	6.2	6.1	6.2	6.0	5.9	5.9	6.2	6.0	6.1
21	6.1	5.8	6.0	6.2	6.1	6.1	6.0	5.5	5.7	6.0	5.9	6.0
22	6.1	5.9	6.0	6.3	6.0	6.2	6.1	5.6	5.7	6.0	5.9	5.9
23	6.3	6.1	6.2	6.8	6.2	6.3	6.4	5.7	5.9	6.0	5.9	5.9
24	6.2	6.1	6.1	6.4	6.2	6.3	6.3	6.1	6.2	5.9	5.9	5.9
25	6.2	6.1	6.2	6.2	6.1	6.2	6.2	6.0	6.1	5.9	5.9	5.9
26	6.7	6.2	6.2	6.2	6.1	6.1	6.0	5.9	5.9	5.9	5.8	5.8
27	6.2	6.2	6.2	6.2	6.1	6.2	6.4	6.0	6.1	6.2	5.9	6.1
28	6.4	5.9	6.2	6.2	6.2	6.2	6.3	6.0	6.1	6.3	6.1	6.2
29	---	---	---	6.2	6.1	6.2	6.6	5.9	6.1	6.3	6.2	6.2
30	---	---	---	6.6	6.1	6.2	6.3	6.0	6.2	6.2	6.1	6.2
31	---	---	---	6.9	6.3	6.5	---	---	---	6.3	6.1	6.3
MONTH	6.7	5.6	6.1	6.9	5.7	6.2	6.8	5.4	6.1	6.3	5.3	5.9

BEST DOCUMENT AVAILABLE

03070455 STONY FORK NEAR ELLIOTTSVILLE, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.2	6.1	6.2	---	---	---	6.4	6.4	6.4	---	---	---
2	6.1	5.8	6.0	---	---	---	6.4	6.2	6.4	6.6	6.5	6.6
3	6.1	5.8	5.9	---	---	---	6.4	6.2	6.3	6.6	6.4	6.5
4	6.3	6.1	6.2	---	---	---	6.4	6.3	6.3	6.8	6.5	6.7
5	6.6	6.4	6.5	---	---	---	6.3	6.2	6.3	6.7	6.6	6.6
6	---	---	---	---	---	---	6.4	6.2	6.3	6.7	6.6	6.7
7	---	---	---	---	---	---	6.4	6.3	6.3	7.0	6.7	6.8
8	---	---	---	---	---	---	6.4	6.3	6.4	7.0	6.7	6.8
9	---	---	---	5.7	5.6	5.7	6.3	6.2	6.3	6.9	6.7	6.7
10	---	---	---	6.5	5.6	5.9	6.3	6.2	6.2	6.9	6.6	6.8
11	---	---	---	6.6	6.4	6.5	6.5	6.1	6.2	7.0	6.6	6.7
12	---	---	---	6.7	6.5	6.6	6.4	5.8	6.1	6.6	5.4	6.1
13	6.3	6.1	6.2	6.8	6.1	6.7	5.8	5.7	5.7	6.2	5.4	5.9
14	6.5	6.1	6.3	6.6	6.3	6.4	5.7	5.5	5.7	6.4	6.3	6.4
15	6.2	6.0	6.1	6.5	6.3	6.4	6.2	5.6	5.8	6.6	6.2	6.4
16	6.2	6.1	6.2	6.5	6.4	6.5	6.7	6.1	6.4	6.5	6.3	6.4
17	6.3	6.2	6.3	6.4	6.2	6.3	6.4	6.3	6.4	6.5	6.4	6.4
18	6.3	6.1	6.2	6.2	6.1	6.1	6.5	6.3	6.4	6.6	6.4	6.5
19	6.1	6.0	6.1	6.1	5.9	6.1	6.6	6.4	6.5	6.7	6.5	6.5
20	6.1	5.9	6.0	6.2	5.9	6.0	6.6	6.5	6.6	6.7	6.4	6.5
21	6.2	6.0	6.1	6.5	6.1	6.3	6.6	6.4	6.5	6.4	6.4	6.4
22	6.5	6.0	6.3	6.7	6.4	6.6	6.5	6.4	6.4	6.4	6.3	6.3
23	6.5	6.4	6.4	6.7	6.2	6.4	6.4	6.4	6.4	6.4	6.4	6.4
24	6.3	6.1	6.2	6.6	6.3	6.5	6.5	6.3	6.4	6.5	6.3	6.4
25	6.5	6.0	6.2	6.6	6.3	6.4	6.7	6.3	6.5	6.4	6.3	6.3
26	6.5	6.4	6.5	6.4	6.2	6.3	6.5	6.3	6.4	6.3	4.9	5.5
27	6.4	6.3	6.4	6.5	6.3	6.4	6.5	6.4	6.5	6.1	5.3	5.9
28	6.3	6.1	6.2	6.6	6.3	6.4	6.5	5.8	6.4	6.2	6.1	6.2
29	6.2	5.8	5.9	6.6	6.2	6.5	6.9	6.2	6.6	6.2	6.0	6.2
30	6.1	5.7	5.8	6.5	6.1	6.4	6.5	6.2	6.4	6.0	5.1	5.4
31	---	---	---	6.5	6.4	6.4	6.5	6.4	6.5	---	---	---
MONTH	6.6	5.7	6.2	6.8	5.6	6.3	6.9	5.5	6.3	7.0	4.9	6.4

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	11.0	12.5	6.5	4.5	5.5	6.0	3.5	4.5	.5	.5	.5
2	13.0	12.0	12.5	6.0	4.0	5.0	5.5	4.5	5.0	.5	.5	.5
3	13.0	11.5	12.0	6.5	3.0	4.5	5.0	2.0	3.0	.5	.5	.5
4	11.5	10.0	10.5	8.5	5.0	6.5	2.5	.5	1.5	.5	.5	.5
5	---	---	---	8.0	6.0	7.0	4.0	2.0	3.0	.5	.5	.5
6	---	---	---	6.5	4.0	5.5	5.0	4.0	4.5	.5	.5	.5
7	---	---	---	8.5	5.0	6.5	7.0	5.5	6.0	.5	.5	.5
8	---	---	---	9.0	7.5	8.0	9.0	7.0	8.0	.5	.5	.5
9	---	---	---	9.0	7.0	7.5	9.0	7.5	8.5	.5	.5	.5
10	---	---	---	8.0	5.5	7.0	7.5	5.0	6.5	.5	.5	.5
11	---	---	---	5.5	3.5	4.5	5.0	3.5	4.0	.5	.5	.5
12	---	---	---	4.5	2.5	3.5	4.5	3.5	4.0	.5	.5	.5
13	---	---	---	5.0	2.5	3.5	5.0	3.5	4.5	.5	.0	.5
14	---	---	---	6.0	3.5	4.5	3.5	1.5	2.5	.0	.0	.0
15	---	---	---	6.0	5.0	5.5	1.5	.5	1.0	.0	.0	.0
16	---	---	---	5.5	3.0	4.5	2.0	1.5	2.0	.0	.0	.0
17	---	---	---	4.0	2.5	3.0	2.0	.5	1.0	.0	.0	.0
18	---	---	---	4.5	4.0	4.5	2.5	.5	1.0	.0	.0	.0
19	---	---	---	4.0	3.0	4.0	2.5	.5	1.5	.5	.0	.5
20	---	---	---	3.0	1.5	2.5	.5	.5	.5	.5	.5	.5
21	---	---	---	3.0	1.0	2.0	.5	.5	.5	.5	.5	.5
22	10.5	8.5	9.5	3.5	2.5	3.0	.5	.5	.5	.5	.5	.5
23	8.0	5.5	7.0	4.0	2.0	3.0	.5	.5	.5	.5	.5	.5
24	8.5	6.0	7.0	7.0	4.0	6.0	.5	.5	.5	.5	.5	.5
25	8.5	7.0	8.0	7.0	5.0	6.0	.5	.5	.5	.5	.5	.5
26	7.0	5.5	6.0	5.0	3.0	4.5	.5	.5	.5	.5	.5	.5
27	6.5	4.5	5.5	4.5	4.0	4.5	.5	.5	.5	1.0	.5	.5
28	7.0	6.0	7.0	4.5	4.0	4.5	.5	.5	.5	2.0	1.0	1.5
29	7.0	6.0	6.5	4.0	2.5	3.0	.5	.5	.5	1.5	.5	1.0
30	6.0	4.5	5.5	4.0	2.5	3.0	.5	.5	.5	.5	.0	.5
31	6.0	4.0	4.5	---	---	---	.5	.5	.5	.5	.5	.5
MONTH	14.0	4.0	8.0	9.0	1.0	5.0	9.0	.5	2.5	2.0	.0	.5

03070455 STONY FORK NEAR ELLIOTTSVILLE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.0	.5	5.5	4.5	5.0	12.0	9.5	10.0	11.0	9.5	10.5
2	1.0	.5	.5	4.5	3.5	4.0	12.0	8.5	10.5	12.0	7.5	10.0
3	.5	.5	.5	4.0	2.0	3.0	12.5	8.5	10.5	14.0	7.5	10.5
4	.5	.5	.5	3.0	1.0	2.0	14.0	11.5	13.0	16.0	9.5	12.5
5	.5	.5	.5	3.5	2.5	3.0	14.0	10.5	12.5	16.5	12.0	14.5
6	.5	.5	.5	3.5	2.0	3.0	---	---	---	15.5	10.5	13.5
7	---	---	---	3.0	1.5	2.0	---	---	---	13.5	8.5	11.0
8	---	---	---	2.5	1.5	2.0	---	---	---	14.0	9.5	12.0
9	---	---	---	4.0	2.5	3.0	---	---	---	15.5	10.5	13.5
10	---	---	---	3.5	2.5	3.0	---	---	---	17.0	13.5	15.5
11	---	---	---	3.0	2.0	2.5	---	---	---	17.5	15.0	16.5
12	---	---	---	5.5	1.5	3.5	---	---	---	16.0	11.5	13.5
13	---	---	---	7.0	3.5	5.0	---	---	---	14.5	10.5	12.5
14	---	---	---	5.0	2.5	3.5	---	---	---	18.0	13.5	15.5
15	---	---	---	6.5	1.5	4.0	11.0	7.0	8.5	17.0	12.5	14.0
16	---	---	---	6.0	2.0	4.0	12.0	6.0	9.0	12.5	11.0	11.5
17	---	---	---	2.0	1.0	1.5	10.5	9.5	10.0	15.0	9.5	12.0
18	---	---	---	3.0	.5	1.5	14.0	10.5	12.0	13.5	11.0	12.0
19	5.5	3.5	4.5	2.0	1.0	1.5	11.0	8.0	9.5	11.0	10.0	10.5
20	5.5	4.5	5.0	1.5	.5	1.0	12.0	8.5	10.0	15.0	8.5	11.5
21	5.0	4.5	4.5	2.5	1.0	1.5	11.5	6.0	8.5	15.5	9.5	12.5
22	7.5	5.0	6.0	3.5	.5	2.0	10.0	6.5	8.5	16.0	11.0	13.5
23	7.0	5.0	6.5	6.0	2.0	4.0	11.5	10.0	10.5	16.5	12.0	14.5
24	5.0	4.5	4.5	5.5	2.5	4.0	11.0	7.5	9.0	18.0	14.0	16.0
25	5.0	3.5	4.0	6.5	3.5	5.0	7.5	7.0	7.5	18.0	15.0	16.5
26	3.5	3.0	3.5	7.0	2.5	5.0	12.0	6.5	9.0	18.5	16.0	17.0
27	5.0	2.5	4.0	7.0	5.0	6.5	15.5	9.5	12.0	18.0	16.5	17.0
28	6.0	4.0	5.0	8.5	3.0	6.0	15.5	10.5	13.0	18.5	16.5	17.5
29	---	---	---	10.0	5.0	7.5	14.5	13.0	14.0	18.0	16.0	17.0
30	---	---	---	10.0	8.5	9.5	13.0	11.0	12.0	17.5	15.5	16.5
31	---	---	---	13.5	9.0	11.0	---	---	---	18.0	16.0	17.0
MONTH	7.5	.0	3.0	13.5	.5	4.0	15.5	6.0	10.5	18.5	7.5	14.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST	.		SEPTEMBER	
1	16.5	14.0	15.0	---	---	---	19.5	16.5	18.0	20.0	18.0	18.5
2	16.5	14.0	15.5	---	---	---	20.0	16.5	18.5	20.5	19.0	19.5
3	17.5	16.0	17.0	---	---	---	21.0	19.0	20.0	20.0	19.0	19.5
4	18.0	17.0	17.5	---	---	---	21.5	19.5	20.5	19.5	19.0	19.0
5	18.0	16.5	17.0	---	---	---	22.5	20.5	21.0	20.5	18.5	19.5
6	---	---	---	---	---	---	21.0	20.0	20.0	20.0	18.0	19.0
7	---	---	---	---	---	---	21.0	19.0	20.0	19.5	17.5	18.5
8	---	---	---	---	---	---	21.5	19.5	20.5	19.0	17.5	18.0
9	---	---	---	23.5	20.5	22.0	21.5	19.0	20.0	17.5	15.5	16.5
10	---	---	---	24.0	21.0	22.5	22.0	18.5	20.0	17.0	13.5	15.5
11	---	---	---	23.0	18.0	21.0	21.5	18.5	20.0	18.0	15.5	16.5
12	---	---	---	23.0	19.0	21.0	21.5	19.0	20.0	19.5	16.5	18.0
13	17.5	16.0	17.0	21.5	19.5	20.5	21.0	18.0	19.5	20.0	17.0	18.5
14	17.5	17.0	17.5	22.5	19.5	21.0	21.0	17.5	19.5	19.5	17.0	18.5
15	19.0	15.5	17.0	21.0	16.5	19.0	20.0	19.0	19.5	19.0	17.0	18.0
16	19.5	16.5	18.0	19.5	17.5	18.5	20.0	18.5	19.5	17.0	16.0	16.5
17	19.0	17.0	18.0	21.0	17.5	19.5	19.0	16.0	17.5	16.0	14.5	15.5
18	18.5	15.0	17.0	22.5	17.5	20.0	18.0	13.5	16.0	14.5	13.0	13.5
19	19.5	17.0	18.0	22.0	18.0	20.0	17.5	13.0	15.5	13.5	12.5	13.0
20	19.0	17.5	18.0	23.0	20.5	21.5	17.5	13.0	15.5	13.5	12.5	13.0
21	19.0	17.5	18.0	21.5	21.0	21.0	17.5	13.0	15.5	15.0	12.5	13.5
22	19.5	17.5	18.5	20.5	19.0	19.5	18.5	15.0	16.5	14.5	13.0	14.0
23	18.5	16.5	17.5	20.0	16.5	18.5	17.5	13.0	15.5	13.0	11.0	12.0
24	19.0	16.5	18.0	20.0	17.5	19.0	18.5	14.5	16.5	12.5	10.0	11.0
25	19.0	18.0	18.5	20.5	17.5	19.0	18.0	14.5	16.5	10.5	9.5	10.0
26	18.5	16.5	17.5	21.5	19.0	20.0	18.5	14.5	16.5	14.5	10.5	13.0
27	17.0	14.5	16.0	21.5	20.0	20.5	19.0	15.0	17.0	15.0	10.5	14.0
28	18.0	14.5	16.5	21.0	19.5	20.0	19.5	16.5	18.0	14.5	10.0	13.0
29	18.0	15.5	18.0	20.0	18.0	19.0	23.0	17.5	19.5	12.0	9.5	11.0
30	19.0	17.0	18.0	19.5	16.0	17.5	20.0	17.5	18.5	13.0	11.5	12.0
31	---	---	---	19.5	16.0	18.0	19.5	17.5	18.5	---	---	---
MONTH	19.5	14.0	17.5	24.0	16.0	20.0	23.0	13.0	18.5	20.5	9.5	15.5

03070455 STONY FORK NEAR ELLIOTTSVILLE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	1.2	21	.07	3.1	3	.03	15	3	.12
2	1.0	19	.05	3.1	2	.02	20	20	1.4
3	1.0	18	.05	3.7	2	.02	23	5	.31
4	1.4	17	.06	3.5	2	.02	18	2	.10
5	1.4	16	.06	3.5	1	.00	15	1	.04
6	1.0	18	.05	3.2	1	.00	13	3	.11
7	.84	17	.04	3.2	1	.00	12	2	.06
8	.72	16	.03	5.9	6	.10	11	2	.06
9	.60	15	.02	6.2	4	.07	25	18	1.4
10	.52	16	.02	7.0	3	.06	28	7	.53
11	.54	14	.02	5.3	2	.03	22	5	.30
12	.47	8	.01	4.8	1	.01	17	3	.14
13	.35	11	.01	4.8	1	.01	14	2	.08
14	.31	15	.01	4.0	1	.01	12	1	.03
15	.28	8	.00	3.8	1	.01	9.8	1	.03
16	.25	11	.00	3.8	3	.03	9.4	1	.03
17	.23	7	.00	18	60	9.7	7.6	1	.02
18	.40	6	.00	46	112	21	7.3	1	.02
19	.47	5	.00	20	1	.05	6.4	1	.02
20	.33	2	.00	14	3	.11	5.9	2	.03
21	.40	3	.00	11	4	.12	5.7	2	.03
22	.44	2	.00	8.7	3	.07	5.4	1	.01
23	.39	3	.00	7.3	2	.04	5.2	1	.01
24	.36	4	.00	58	147	35	5.0	2	.03
25	17	90	6.7	42	20	2.3	4.9	2	.03
26	13	22	.96	29	6	.47	4.8	1	.01
27	6.6	5	.09	21	3	.17	4.7	2	.03
28	6.3	6	.10	19	1	.05	4.6	1	.01
29	6.3	3	.05	16	2	.09	4.8	1	.01
30	4.0	1	.01	14	1	.04	5.3	1	.01
31	3.1	3	.03	---	---	---	5.8	2	.03
TOTAL	71.20	---	8.44	392.9	---	69.63	347.6	---	5.04

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	5.5	1	.01	52	15	2.1	47	25	3.2
2	5.3	1	.01	87	206	62	28	14	1.1
3	5.0	1	.01	52	10	1.4	21	11	.62
4	4.9	2	.03	30	9	.73	17	9	.41
5	4.7	1	.01	19	6	.31	27	8	.58
6	4.6	2	.02	12	7	.23	25	6	.41
7	4.5	1	.01	11	9	.27	20	5	.27
8	4.4	1	.01	10	8	.22	16	6	.26
9	4.3	2	.02	12	10	.32	13	5	.18
10	4.2	1	.01	14	14	.53	11	6	.18
11	4.1	1	.01	60	79	13	9.0	6	.15
12	3.9	1	.01	45	12	1.5	7.6	10	.21
13	3.8	1	.01	33	11	.98	7.0	9	.17
14	3.7	1	.00	25	7	.47	7.0	7	.13
15	3.6	1	.00	21	10	.57	14	8	.30
16	3.6	2	.02	20	20	1.1	25	20	1.4
17	3.6	2	.02	48	70	9.1	23	9	.56
18	3.6	1	.00	55	30	4.5	19	11	.56
19	3.6	4	.04	40	20	2.2	15	10	.41
20	3.8	2	.02	98	216	62	12	8	.26
21	4.3	1	.01	88	30	7.1	10	5	.14
22	5.1	1	.01	45	20	2.4	9.0	7	.17
23	4.9	3	.04	45	25	3.0	12	15	.49
24	4.8	1	.01	36	17	1.7	15	9	.36
25	5.2	2	.03	27	11	.80	13	6	.21
26	21	39	5.0	22	9	.53	12	4	.13
27	31	55	4.6	16	8	.35	13	8	.28
28	22	15	.89	47	119	30	11	2	.06
29	12	11	.36	---	---	---	11	5	.15
30	7.2	10	.19	---	---	---	10	6	.16
31	6.4	9	.16	---	---	---	9.2	8	.20
TOTAL	208.6	---	11.57	1070	---	209.41	488.8	---	13.71

03070455 STONY FORK NEAR ELLIOTTSVILLE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	9.2	11	.27	16	10	.43	7.1	8	.15
2	8.4	7	.16	13	7	.25	7.1	6	.12
3	7.4	7	.14	11	6	.18	7.1	9	.17
4	6.5	8	.14	9.3	7	.18	8.3	15	.34
5	6.7	7	.13	8.7	12	.28	11	9	.27
6	6.1	6	.10	7.7	11	.23	55	213	51
7	5.3	3	.04	7.4	10	.20	34	30	2.8
8	4.8	3	.04	6.1	10	.16	19	20	1.0
9	5.0	4	.05	5.2	8	.11	33	94	9.8
10	4.5	3	.04	5.2	10	.14	83	152	54
11	16	117	26	6.1	11	.18	38	30	3.1
12	187	633	636	6.1	9	.15	21	20	1.1
13	186	262	196	5.2	8	.11	17	13	.60
14	95	176	52	4.9	11	.15	65	178	52
15	55	30	4.5	39	124	14	34	30	2.8
16	28	25	1.9	22	17	1.0	20	19	1.0
17	20	20	1.1	17	12	.55	16	13	.56
18	143	535	399	14	12	.45	11	12	.36
19	43	30	3.5	22	30	2.3	8.3	11	.25
20	25	22	1.5	26	18	1.3	8.3	8	.18
21	18	17	.83	18	10	.49	6.7	7	.13
22	15	14	.57	15	9	.36	11	25	.74
23	18	28	1.6	12	8	.26	7.7	13	.27
24	36	40	3.9	9.3	8	.20	5.8	12	.19
25	44	30	3.6	7.7	7	.15	9.0	21	.51
26	27	15	1.1	7.4	10	.20	8.3	9	.20
27	20	12	.65	12	15	.49	5.8	5	.08
28	18	15	.73	9.3	11	.28	4.6	4	.05
29	17	19	.93	8.0	9	.19	4.3	3	.03
30	17	14	.64	7.7	8	.17	5.2	12	.17
31	---	---	---	10	12	.32	---	---	---
TOTAL	1091.9	---	1337.16	368.3	---	25.46	571.6	---	183.97

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	6.4	10	.17	1.6	9	.04	2.3	20	.12
2	3.7	5	.05	1.4	7	.03	5.2	54	1.4
3	3.2	8	.07	1.5	6	.02	7.4	70	1.6
4	3.4	10	.09	1.4	8	.03	12	20	.65
5	2.8	11	.08	1.1	4	.01	5.8	10	.16
6	2.6	8	.06	.93	7	.02	2.8	8	.06
7	2.1	6	.03	.73	10	.02	1.8	6	.03
8	1.8	3	.01	.44	6	.00	2.4	12	.08
9	1.7	2	.00	.44	5	.00	2.6	11	.08
10	1.8	5	.02	5.2	7	.10	1.4	7	.03
11	1.6	7	.03	1.1	6	.02	1.4	7	.03
12	1.6	9	.04	.93	8	.02	1.0	7	.02
13	1.4	11	.04	.63	5	.00	.83	6	.01
14	2.4	7	.05	.49	4	.00	.63	4	.00
15	.55	4	.00	.39	13	.01	33	251	22
16	.73	5	.00	4.6	78	1.2	36	80	7.8
17	.83	4	.00	1.0	13	.04	16	17	.73
18	.55	4	.00	.93	10	.03	11	10	.30
19	.49	3	.00	.73	8	.02	7.4	8	.16
20	1.1	15	.04	.35	4	.00	5.2	4	.06
21	4.6	30	.44	.35	7	.00	3.7	1	.00
22	4.0	11	.12	.27	6	.00	3.0	3	.02
23	1.6	8	.03	.27	7	.00	2.4	2	.01
24	1.1	7	.02	.35	14	.04	2.1	1	.00
25	.83	8	.02	.11	19	.09	2.3	4	.02
26	1.0	11	.03	.19	10	.00	1.8	1	.00
27	4.9	30	.40	.07	9	.00	1.5	2	.00
28	6.1	60	1.5	.23	11	.00	1.6	1	.00
29	9.0	50	1.2	.00	9	.00	1.4	2	.00
30	3.7	9	.09	.27	14	.01	1.5	2	.00
31	2.3	7	.04	.73	12	.02	---	---	---
TOTAL	79.88	---	4.67	28.73	---	1.77	177.46	---	35.37
YEAR	4896.97		1906.20						

03072000 DUNKARD CREEK AT SHANNOPIN, PA

LOCATION.--Lat 39°45'33", long 79°58'15", Greene County, Hydrologic Unit 05020005, on left bank at Shannopin, 1,300 ft (400 m) upstream from highway bridge at mine buildings, 1.2 mi (1.9 km) north of Dunkard, 3.5 mi (5.6 km) upstream from mouth, and 4 mi (6 km) southwest of Greensboro.

DRAINAGE AREA.--229 mi^2 (593 km^2).

PERIOD OF RECORD.--October 1940 to current year. Prior to December 1940 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1505: 1955.

GAGE.--Water-stage recorder. Datum of gage is 806.25 ft (245.745 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter period, and period of no gage-height record Nov. 1 to Dec. 3, which are fair. Some regulation at low flow by mine pumpage above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 281 ft^3/s (7.958 m^3/s), 16.66 in/yr (423 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft^3/s (498 m^3/s) Aug. 18, 1980, gage height, 14.27 ft (4.349 m); minimum, 0.4 ft^3/s (0.011 m^3/s) Aug. 28, 1944, gage height, 0.75 ft (0.229 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s (113 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 13	0700	*9550	270	*11.23	3.423	June 10	1800	7780	220	10.43	3.179
June 6	2300	7120	202	10.10	3.078						

Minimum discharge, 9.8 ft^3/s (0.28 m^3/s) Aug. 29,30, gage height, 1.14 ft (0.347 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	49	230	100	234	883	166	321	185	140	96	72
2	49	44	880	105	2300	639	154	269	135	180	68	81
3	47	40	589	86	1460	460	138	211	125	109	54	54
4	48	40	421	78	638	348	124	177	197	84	49	55
5	48	37	326	80	358	789	120	158	305	80	78	77
6	47	34	280	96	280	1150	125	148	4570	71	75	63
7	42	31	280	86	230	701	115	156	3190	65	65	40
8	38	34	407	80	200	481	100	130	800	61	70	31
9	33	45	513	74	190	375	100	109	838	50	60	28
10	31	54	1180	68	210	318	108	97	4310	46	51	27
11	30	50	703	62	400	291	119	101	2110	46	43	23
12	27	44	464	56	1200	268	2190	141	784	40	40	19
13	24	38	363	60	583	229	6170	125	424	48	38	16
14	29	35	283	64	509	199	2100	110	1670	105	33	14
15	28	33	210	68	410	174	1660	350	1770	92	29	49
16	29	70	170	64	377	235	867	512	733	57	28	113
17	26	160	130	60	559	459	617	290	547	44	26	103
18	33	360	110	58	928	371	721	211	346	39	31	66
19	27	220	86	56	794	322	559	364	228	35	29	47
20	27	180	84	58	1020	274	450	1230	185	36	24	38
21	25	160	70	60	2100	252	345	583	163	45	20	33
22	27	140	82	64	1230	240	277	325	809	83	17	32
23	32	130	86	74	1720	241	264	227	646	85	15	30
24	24	250	88	84	2400	233	421	174	286	59	14	23
25	261	470	80	110	1080	215	454	138	212	44	13	18
26	259	340	74	150	639	193	389	116	249	38	15	16
27	134	290	68	240	441	197	550	111	180	151	13	14
28	109	270	62	868	409	214	698	108	127	133	11	13
29	78	260	64	472	---	190	502	128	100	891	11	12
30	61	240	74	247	---	191	402	111	87	374	12	19
31	54	---	86	193	---	191	---	159	---	164	20	---
TOTAL	1780	4148	8543	4021	22899	11323	21005	7390	26311	3495	1148	1226
MEAN	57.4	138	276	130	818	365	700	238	877	113	37.0	40.9
MAX	261	470	1180	868	2400	1150	6170	1230	4570	891	96	113
MIN	24	31	62	56	190	174	100	97	87	35	11	12
CFSM	.25	.60	1.21	.57	3.57	1.59	3.06	1.04	3.83	.49	.16	.18
IN.	.29	.67	1.39	.65	3.72	1.84	3.41	1.20	4.27	.57	.19	.20

CAL YR 1980 TOTAL 140852 MEAN 385 MAX 7200 MIN 24 CFSM 1.68 IN 22.88
WTR YR 1981 TOTAL 113289 MEAN 310 MAX 6170 MIN 11 CFSM 1.35 IN 18.40

03072500 MONONGAHELA RIVER AT GREENSBORO, PA

LOCATION.--Lat 39°47'15", long 79°55'26", Greene County, Hydrologic Unit 05020005, on left bank on land guide wall, 950 ft (290 m) upstream from dam at lock 7, at Greensboro, 0.4 mi (0.6 km) upstream from Georges Creek, 2.0 mi (3.2 km) downstream from Dunkard Creek, 4.3 mi (6.9 km) downstream from Cheat River and at mile 85.2 (137.1 km).

DRAINAGE AREA.--4,407 mi^2 (11,414 km^2).

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1113: 1939 (M), 1941 (M). WSP 1435: 1939. WSP 1907: 1936 (M), 1955 (M).

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 767.55 ft (233.949 m) National Geodetic Vertical Datum, adjustment of 1912.

REMARKS.--Records good above 5,000 ft^3/s (140 m^3/s) and fair below except those below 1,000 ft^3/s (28 m^3/s), which are poor. Flow regulated since 1938 by Tygart Lake 66 mi (106 km) upstream and since 1926 by Lake Lynn 8 mi (13 km) upstream combined capacity, 357,300 acre-ft (441 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 8,240 ft^3/s (233.4 m^3/s), 25.39 in/yr (645 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 134,000 ft^3/s (3,790 m^3/s) Mar. 7, 1967, gage height, 29.61 ft (9.025 m); minimum daily, 204 ft^3/s (5.78 m^3/s) Sept. 1-3, 5, 1946; minimum gage height, 10.23 ft (3.118 m) Apr. 29, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1888 reached a stage of about 36 ft (11.0 m), from high-water profile by Corps of Engineers. Flood of Mar. 18, 1936, reached a stage of 28.4 ft (8.66 m) discharge, 130,000 ft^3/s (3,680 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 104,000 ft^3/s (2,950 m^3/s) June 6, gage height, 23.67 ft (7.215 m); minimum daily, 588 ft^3/s (16.7 m^3/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1870	2460	11100	3300	6820	22300	15800	7650	25200	3940	2070	1310
2	1240	1360	13700	4160	22200	23800	13300	20400	20600	4820	1580	2810
3	1590	1970	18200	3700	21400	19200	13600	18100	19200	3460	1950	4320
4	1660	2250	15700	4230	12400	16500	8910	14200	17800	4630	2850	7140
5	1400	1470	12600	4700	12000	18000	7720	14800	28800	3820	1400	11900
6	1550	2090	11000	2570	10500	19700	7000	13100	77800	3980	2130	6030
7	1570	1990	7740	3400	9500	17200	6170	6250	67300	4820	2570	2360
8	1970	2200	11100	3020	5930	13900	5960	5430	40000	4530	2000	3350
9	1850	953	12600	2020	6830	12900	4600	4680	32300	3200	1980	4390
10	1310	1900	21900	2440	8170	11800	4150	3560	35300	3100	2280	5180
11	1200	2040	21100	1500	8490	11400	7870	4470	38400	2230	2290	3250
12	1290	2610	17500	2430	15500	7780	21900	6330	30800	1540	2320	3030
13	1520	2200	12100	2890	15200	8240	33700	7760	22400	1860	971	1530
14	1330	1090	6330	2850	13900	6520	22600	7770	32400	2530	1850	3140
15	1260	1170	7050	2540	11800	4890	20400	17200	29400	2450	933	4470
16	2250	1360	5840	2850	11400	7930	15100	20000	25000	3060	1020	7990
17	1220	2350	5890	1630	13100	7850	11000	16600	12900	1420	1560	8270
18	1290	[illegible]	3950	1440	17400	7510	16600	14600	7910	829	2080	7740
19	1110	[illegible]	2780	3000	18500	7370	14600	20400	4650	680	1390	5630
20	1110	[illegible]	2780	2220	21200	6420	15000	38700	5840	1040	1350	3700
21	1920	10000	1920	2550	48400	4500	13600	30300	10800	2960	2270	4880
22	1260	8290	2850	2150	33600	2970	10700	22800	13500	2190	757	4040
23	1240	4590	2720	3550	30200	3870	11000	17500	14200	2530	588	4350
24	1360	10900	4030	3270	38100	5050	12700	9010	10900	1990	1300	2370
25	2850	26400	1690	4010	29700	4540	11300	5110	8640	2480	620	1730
26	4120	19800	1940	10900	23900	5670	11600	6300	10200	1730	1220	633
27	4290	18800	1470	26300	18000	9200	10900	5100	8060	3660	1050	1220
28	3880	17300	1570	13600	17200	18800	13500	5770	5660	3020	1600	1340
29	2270	14800	2140	11500	---	22000	10500	12000	4590	8460	848	1120
30	4680	11000	3540	7350	---	15800	8350	11400	2570	6770	932	1700
31	2550	---	4250	3570	---	17000	---	18500	---	3590	1410	---
TOTAL	60010	222543	249080	145640	501340	360610	380130	405790	663120	97319	49169	120923
MEAN	1936	7418	8035	4698	17910	11630	12670	13090	22100	3139	1586	4031
MAX	4680	26400	21900	26300	48400	23800	33700	38700	77800	8460	2850	11900
MIN	1110	953	1470	1440	5930	2970	4150	3560	2570	680	588	633
†	-497	-26.9	-387	+148	+714	-412	+1080	+29.1	-223	-12.7	-239	-283
MEAN†	1439	7391	7648	4846	18620	11220	13750	13120	21880	3126	1347	3748
CFSM†	.33	1.68	1.74	1.10	4.23	2.55	3.12	2.98	4.96	.71	.31	.85
IN.‡	.38	1.87	2.01	1.27	4.40	2.94	3.38	3.44	5.53	.82	.36	.95

CAL YR 1980 TOTAL 3426136 MEAN 9361 MAX 64600 MIN 883 ADJ +3.6 MEAN† 9365 CFSM‡ 2.13 IN.† 28.93
WTR YR 1981 TOTAL 3255674 MEAN 8920 MAX 77800 MIN 588 ADJ -16.6 MEAN‡ 8903 CFSM† 2.02 IN.‡ 27.45

† Change in contents, equivalent in cubic feet per second, in Tygart Lake and Lake Lynn. Records of contents in Lake Lynn furnished by Allegheny Power Service Corp.

‡ Adjusted for change in reservoir contents.

03072670 WHITELEY CREEK NEAR KIRBY, PA

LOCATION.--Lat 39°47'39", long 80°08'10", Greene County, Hydrologic Unit 0502005, on left bank on township road, 150 ft (46 m) from intersection with Legislative Route 30014, 1.1 mi (1.8 km) downstream from confluence of Whiteley Creek and Patterson Run, at bridge 1.2 mi (1.9 km) southwest of Kirby.

DRAINAGE AREA.--5.95 mi² (15.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder and V-notch concrete weir. Altitude of gage is 1,030 ft (314 m) from topographic map.

REMARKS.--Records good except those for winter periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 728 ft³/s (20.6 m³/s) Apr.12, 1981, gage height, 8.45 ft (2.576 m); minimum, 0.08 ft³/s (0.002 m³/s) Aug. 23, 24, 1981, gage height, 1.45 ft (0.442 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 150 ft³/s (4.25 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 23	1245	181	5.13	4.06	1.237	June 10	0700	412	11.7	6.21	1.893
Apr. 12	1945	*728	20.6	*8.45	2.576	June 14	1200	217	6.15	4.42	1.347
June 6	0115	177	5.01	4.02	1.225						

Minimum discharge, 0.08 ft³/s (0.002 m³/s) Aug. 23, 24, gage height, 1.45 ft (0.447 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	.94	8.5	2.2	23	14	2.6	6.0	1.7	2.6	.58	2.0
2	.71	.94	8.5	2.5	86	11	2.6	4.8	1.7	2.3	.66	3.6
3	.80	.94	8.5	1.9	20	8.0	2.3	3.6	1.7	1.4	.77	4.0
4	.94	1.1	6.5	1.7	13	7.2	2.1	3.2	2.0	.80	.78	4.4
5	.71	1.3	5.0	1.6	6.4	23	2.6	2.9	25	.78	.87	2.0
6	.80	.80	5.0	1.5	3.6	19	2.0	3.6	79	1.2	.90	.80
7	.71	.80	6.5	1.4	3.7	13	1.7	3.2	20	.76	.85	.80
8	.80	1.3	7.4	1.4	3.9	9.2	1.6	2.0	8.5	.71	.75	.90
9	.71	1.7	19	1.3	4.0	7.4	2.4	1.5	28	1.1	.59	1.7
10	.63	1.5	20	1.3	4.4	6.3	2.2	1.3	140	.73	.82	.90
11	.71	1.5	12	1.2	15	7.2	30	2.0	27	.60	.71	.71
12	.56	1.3	8.5	1.2	21	6.2	273	1.7	13	.52	.62	.80
13	.80	1.1	7.0	1.2	13	4.9	125	1.5	13	3.1	.57	.63
14	.71	1.1	5.6	1.2	10	3.6	45	1.3	66	1.2	1.1	1.3
15	.71	1.1	4.0	1.1	9.0	3.3	24	6.0	22	1.0	.40	2.6
16	.94	1.1	4.4	1.1	8.5	11	15	3.6	12	.88	.29	1.5
17	.71	8.5	3.2	1.1	19	11	15	2.3	7.5	.75	.37	1.1
18	.80	21	2.9	1.1	19	7.0	18	2.3	4.4	.57	.60	1.3
19	.80	8.3	2.6	1.1	17	5.6	13	10	2.9	.44	.96	.80
20	.71	4.6	2.3	1.1	38	5.2	9.8	11	2.6	.64	.62	.55
21	.80	3.2	2.2	1.3	49	4.8	6.7	6.5	7.1	.93	.39	1.1
22	.71	2.6	2.0	1.5	21	4.4	5.6	3.6	35	.72	.69	1.1
23	.71	2.0	1.9	1.8	80	3.6	12	2.6	14	.63	.18	.71
24	.71	21	1.8	2.2	34	3.2	17	2.0	6.5	.66	.35	.90
25	9.3	17	1.8	3.0	18	2.6	15	1.7	5.9	.62	.80	.71
26	5.0	8.3	2.8	20	12	2.6	12	1.5	4.5	.58	.51	.71
27	2.3	10	1.5	21	8.7	3.2	13	1.5	2.5	1.4	.47	.63
28	1.7	13	1.6	13	13	2.3	10	2.0	1.6	1.9	.54	.63
29	1.5	12	1.7	7.9	---	2.3	9.0	1.5	1.4	1.3	.84	.80
30	1.1	9.0	1.8	4.5	---	2.3	7.0	1.7	1.6	.80	.48	.71
31	.94	---	1.9	5.6	---	2.6	---	4.0	---	.85	1.8	---
TOTAL	39.74	159.02	168.4	110.0	573.2	217.0	697.2	102.4	558.1	32.47	20.86	40.39
MEAN	1.28	5.30	5.43	3.55	20.5	7.00	23.2	3.30	18.6	1.05	.67	1.35
MAX	9.3	21	20	21	86	23	273	11	140	3.1	1.8	4.4
MIN	.56	.80	1.5	1.1	3.6	2.3	1.6	1.3	1.4	.44	.18	.55
CFSM	.22	.89	.91	.60	3.45	1.18	3.90	.56	3.13	.18	.11	.23
IN.	.25	.99	1.05	.69	3.58	1.36	4.36	.64	3.49	.20	.13	.25

CAL YR 1980 TOTAL 3402.91 MEAN 9.30 MAX 219 MIN .55 CFSM 1.56 IN 21.27
WTR YR 1981 TOTAL 2718.78 MEAN 7.45 MAX 273 MIN .18 CFSM 1.25 IN 17.00

03072670 WHITELEY CREEK NEAR KIRBY, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
pH: October 1979 to current year.
WATER TEMPERATURE: October 1979 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor and automatic sediment sampler since October 1979.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality monitor record, samples were collected approximately once a month.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,340 micromhos Aug. 25, 1981; minimum, 40 micromhos Aug. 18, 1980.
pH: Maximum, 8.6 on several days; minimum, 6.8 June 10, 1981.
WATER TEMPERATURE: Maximum, 30.0°C July 10, 1981; minimum, freezing point on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 1,310 mg/L Mar. 31, 1980; minimum daily, 3 mg/L Nov. 20, 21, 1979.
SEDIMENT DISCHARGES: Maximum daily, 1,350 tons (1,220 tonnes) Apr. 12, 1981; minimum daily, 0.0 ton (0.0 tonne) Feb. 10, 11, 1980

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2,340 micromhos Aug. 25; minimum, 166 micromhos Feb. 2.
pH: Maximum, 8.6 Nov 16, Mar. 31; Minimum, 6.8 June 10.
TEMPERATURE: Maximum, 30.0°C July 10,; minimum, freezing point on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 1,280 mg/L Apr. 12; minimum daily, 4 mg/L May 6, 7, 8, 9.
SEDIMENT DISCHARGES: Maximum daily, 1,350 tons (1,220 tonnes) Apr. 12; minimum daily, .02 ton (.02 tonne) on several days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT									
17...	1030	.64	1380	7.8	11.0	--	4.0	--	--
NOV									
21...	1030	3.2	405	7.3	2.0	--	4.0	--	--
DEC									
09...	0830	12	265	7.3	9.0	--	4.0	--	--
JAN									
15...	1100	1.2	600	7.4	.0	--	6.0	--	--
FEB									
10...	0900	4.0	380	7.3	.0	--	6.0	--	--
MAR									
10...	0845	7.2	235	7.2	2.5	--	4.0	--	--
APR									
13...	1815	52	140	7.1	14.0	--	4.0	--	--
MAY									
12...	0830	1.8	470	7.4	14.0	--	4.0	--	--
JUN									
02...	1210	1.6	425	7.8	19.0	--	4.0	--	--
09...	1340	40	240	7.3	20.0	--	5.0	--	--
JUL									
30...	1530	.74	900	8.2	23.5	--	.0	--	--
AUG									
20...	0915	.54	1820	8.2	16.0	290	5.0	91	15
SEP									
14...	1330	1.7	1450	8.1	22.5	--	.0	--	--

03072670 WHITELEY CREEK NEAR KIRBY, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE FET-FLD (MG/L AS HCO3)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT									
17...	--	--	230	190	370	100	--	--	910
NOV									
21...	--	--	110	88	100	14	--	--	248
DEC									
09...	--	--	61	50	53	7.8	--	--	157
JAN									
15...	--	--	120	100	140	34	--	--	388
FEB									
10...	--	--	73	60	82	20	--	--	240
MAR									
10...	--	--	49	40	48	7.5	--	--	136
APR									
13...	--	--	29	24	35	2.8	--	--	101
MAY									
12...	--	--	140	120	72	40	--	--	299
JUN									
02...	--	--	110	92	92	11	--	--	264
09...	--	--	56	46	45	5.3	--	--	147
JUL									
30...	--	--	140	110	280	55	--	--	680
AUG									
20...	310	4.7	250	210	600	12	.6	4.7	1360
SEP									
14...	--	--	200	170	450	73	--	--	926

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT									
17...	--	--	--	550	50	250	270	--	--
NOV									
21...	--	--	--	520	60	260	260	--	--
DEC									
09...	--	--	--	1400	60	180	140	--	--
JAN									
15...	--	--	--	290	60	270	320	--	--
FEB									
10...	--	--	--	500	10	130	140	--	--
MAR									
10...	--	--	--	350	40	110	90	--	--
APR									
13...	--	--	--	3100	90	190	60	--	--
MAY									
12...	--	--	--	400	20	120	120	--	--
JUN									
02...	--	--	--	630	40	220	190	--	--
09...	--	--	--	5100	150	240	50	--	--
JUL									
30...	--	--	--	330	10	70	40	--	--
AUG									
20...	.20	140	10	340	20	90	60	10	<4
SEP									
14...	--	--	--	420	40	100	70	--	--

03072670 WHITELEY CREEK NEAR KIRBY, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1390	1270	1330	856	730	789	460	242	328	514	392	429
2	1410	1300	1340	1150	492	818	394	266	300	928	432	631
3	1400	1180	1250	1150	550	852	532	260	327	496	396	433
4	1520	1160	1300	1290	910	1030	534	258	368	466	316	377
5	1520	1140	1280	1440	948	1160	402	268	287	514	334	416
6	1540	804	1360	1420	826	1050	470	280	308	472	398	414
7	1470	1240	1310	1310	800	1080	628	238	342	468	406	437
8	1600	1220	1390	1040	624	803	480	234	306	536	470	504
9	1590	1130	1440	924	402	553	376	224	259	544	452	507
10	1590	1230	1450	702	396	535	412	214	272	486	308	418
11	1650	1170	1430	988	450	641	452	202	294	562	332	430
12	1660	1470	1610	842	426	530	232	204	225	772	548	632
13	1470	654	1040	948	630	743	390	246	267	768	604	692
14	1600	1320	1530	852	688	741	528	250	340	658	458	598
15	1490	1150	1370	1150	752	887	274	266	271	746	466	589
16	1610	1160	1360	976	778	825	454	270	309	546	510	527
17	1600	1400	1460	1070	238	753	552	280	332	552	498	531
18	1630	1180	1500	342	226	261	534	300	351	816	502	710
19	1550	702	1090	332	276	301	334	322	327	914	738	820
20	1570	1220	1410	488	332	371	696	334	456	958	608	712
21	1640	1300	1520	450	362	409	432	384	413	956	608	801
22	1560	1380	1520	642	452	488	420	322	374	608	472	511
23	1430	1380	1410	630	496	515	416	308	353	504	456	470
24	1500	1380	1460	494	250	339	414	332	384	468	408	435
25	1460	344	781	316	252	274	476	316	369	478	304	402
26	584	328	401	472	302	329	390	292	328	304	220	265
27	676	364	535	430	254	304	334	276	298	262	228	247
28	938	614	725	252	240	246	536	320	386	400	228	271
29	844	626	721	408	242	285	530	464	509	466	292	356
30	1030	600	782	328	244	264	462	418	430	362	286	324
31	1020	640	801	---	---	---	808	394	524	368	304	341
MONTH	1660	328	1220	1440	226	606	808	202	343	958	220	491

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	334	168	287	---	---	---	534	248	398	302	290	296
2	228	166	197	---	---	---	274	258	266	322	304	308
3	240	184	196	---	---	---	282	268	274	344	324	330
4	426	202	267	---	---	---	292	276	282	402	348	370
5	456	244	329	---	---	---	292	270	280	418	382	402
6	---	---	---	296	206	252	300	280	286	620	326	390
7	---	---	---	294	248	264	306	290	298	684	488	632
8	---	---	---	250	246	247	320	300	306	502	426	462
9	---	---	---	250	232	245	354	296	318	532	484	510
10	---	---	---	280	224	244	316	296	304	562	488	526
11	---	---	---	470	256	330	---	---	---	560	408	486
12	---	---	---	468	306	370	---	---	---	536	442	500
13	---	---	---	336	294	311	---	---	---	532	486	509
14	---	---	---	312	262	273	---	---	---	552	492	530
15	---	---	---	358	262	287	---	---	---	534	324	392
16	---	---	---	284	224	255	---	---	---	384	322	350
17	---	---	---	236	226	230	---	---	---	412	384	396
18	---	---	---	262	192	222	---	---	---	476	426	440
19	---	---	---	228	206	214	---	---	---	442	238	360
20	---	---	---	260	218	236	---	---	---	332	236	268
21	---	---	---	296	260	280	---	---	---	454	344	411
22	---	---	---	260	220	236	---	---	---	382	356	362
23	---	---	---	278	226	240	---	---	---	416	384	403
24	---	---	---	256	232	244	238	220	230	456	418	432
25	---	---	---	350	246	290	234	224	228	484	440	463
26	---	---	---	360	336	346	260	228	238	542	442	508
27	---	---	---	366	270	302	256	240	246	566	520	545
28	---	---	---	270	250	262	254	240	246	540	474	515
29	---	---	---	264	246	256	268	254	258	542	488	520
30	---	---	---	278	252	260	292	270	278	572	432	534
31	---	---	---	264	236	252	---	---	---	488	368	394
MONTH	456	166	255	470	192	267	534	220	279	684	236	437

03072670 WHITELEY CREEK NEAR KIRBY, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	532	410	498	666	376	488	---	---	---	1820	810	1410
2	876	476	589	1080	432	665	---	---	---	1480	964	1090
3	644	432	564	1090	780	983	---	---	---	1710	738	1230
4	500	424	470	794	632	707	---	---	---	1270	734	965
5	556	224	414	880	610	766	---	---	---	1490	1280	1410
6	302	242	253	1160	662	822	---	---	---	1370	1020	1140
7	290	254	269	980	848	912	---	---	---	1430	1130	1290
8	326	274	292	1070	936	1010	---	---	---	1430	1000	1250
9	435	250	316	1400	988	1170	---	---	---	1510	1020	1350
10	308	178	222	1500	1380	1440	---	---	---	1510	1290	1390
11	310	215	258	1420	1200	1280	---	---	---	1380	1230	1330
12	400	238	298	1490	1260	1410	---	---	---	1380	1160	1300
13	320	206	278	1490	524	1050	---	---	---	1340	1150	1220
14	306	191	216	776	530	653	1970	1420	1810	1430	1230	1330
15	235	215	226	1710	744	942	1920	1740	1860	1400	802	1140
16	400	228	294	1530	1390	1460	1740	1490	1560	1300	872	1070
17	303	265	277	1620	1470	1530	1600	1480	1540	1130	864	1000
18	324	285	299	1600	1300	1370	2190	1490	1770	1490	1010	1340
19	412	303	342	1580	1260	1380	2120	1920	1990	1520	1280	1410
20	390	330	365	---	---	---	2080	1980	2020	1280	1120	1180
21	402	222	323	---	---	---	2170	2080	2130	1550	1110	1260
22	348	190	237	---	---	---	2170	2120	2140	1550	1300	1490
23	396	218	289	---	---	---	2120	2080	2100	1310	1130	1220
24	596	276	432	---	---	---	2080	2000	2060	1490	1220	1390
25	608	302	430	---	---	---	2340	1990	2100	1530	1350	1430
26	608	328	459	---	---	---	2170	2110	2130	1470	1300	1380
27	638	440	543	---	---	---	2180	2080	2160	1390	1300	1340
28	582	434	479	---	---	---	2120	1890	2040	1700	1380	1530
29	704	572	630	---	---	---	2050	1570	1800	1950	1380	1610
30	788	632	716	---	---	---	1940	1670	1820	1780	1330	1500
31	---	---	---	---	---	---	1660	636	1290	---	---	---
MONTH	876	178	376	1710	376	1050	2340	636	1910	1950	734	1300
YEAR	2340	166	713									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.1	7.8	7.9	7.7	7.6	7.7	7.5	7.3	7.4	7.8	7.6	7.7
2	7.9	7.8	7.8	7.8	7.7	7.7	7.7	7.4	7.4	8.1	7.7	7.9
3	8.0	7.8	7.9	7.8	7.7	7.8	7.7	7.5	7.6	7.8	7.6	7.7
4	8.1	7.8	7.9	8.1	7.5	7.8	7.7	7.5	7.6	7.7	7.4	7.6
5	8.2	7.9	8.0	8.2	7.8	8.0	7.6	7.4	7.5	7.7	7.4	7.5
6	8.2	8.0	8.1	8.3	7.9	8.0	7.6	7.4	7.4	7.6	7.4	7.5
7	8.2	7.9	8.0	8.5	7.9	8.1	7.7	7.3	7.4	7.6	7.4	7.5
8	8.1	7.9	8.0	7.9	7.7	7.8	7.7	7.3	7.4	7.6	7.5	7.5
9	7.9	7.7	7.8	7.8	7.7	7.7	7.5	7.3	7.3	7.6	7.5	7.5
10	7.8	7.7	7.8	8.0	7.6	7.8	7.5	7.3	7.3	7.6	7.4	7.5
11	7.8	7.6	7.7	8.2	7.7	7.9	7.6	7.3	7.4	7.6	7.4	7.5
12	7.8	7.6	7.7	8.5	7.6	7.9	7.4	7.3	7.3	7.9	7.6	7.7
13	7.8	7.6	7.7	8.5	7.9	8.1	7.5	7.4	7.4	7.8	7.6	7.7
14	7.9	7.8	7.9	8.5	7.9	8.1	7.9	7.4	7.6	7.8	7.5	7.7
15	7.9	7.7	7.8	8.1	7.8	7.9	7.6	7.4	7.5	7.8	7.5	7.6
16	8.1	7.6	7.8	8.6	7.9	8.1	7.7	7.4	7.5	7.7	7.6	7.6
17	8.1	7.8	7.9	8.4	7.7	8.0	7.9	7.5	7.6	7.7	7.6	7.7
18	7.9	7.7	7.9	7.7	7.5	7.5	7.9	7.5	7.6	7.9	7.6	7.8
19	7.9	7.6	7.7	7.6	7.5	7.6	7.8	7.5	7.6	8.1	7.8	7.9
20	8.1	7.7	7.9	7.7	7.6	7.7	7.8	7.5	7.6	8.0	7.7	7.8
21	8.3	8.0	8.1	7.7	7.4	7.6	7.7	7.5	7.6	8.0	7.7	7.9
22	8.4	8.0	8.1	7.5	7.4	7.5	7.7	7.5	7.5	7.9	7.7	7.7
23	8.3	8.0	8.1	7.5	7.4	7.5	7.7	7.4	7.6	7.8	7.7	7.7
24	8.3	7.9	8.1	7.4	7.2	7.3	7.8	7.5	7.7	7.8	7.6	7.7
25	7.9	7.5	7.6	7.3	7.2	7.3	7.8	7.4	7.6	7.7	7.5	7.6
26	7.6	7.5	7.5	7.5	7.3	7.4	7.6	7.4	7.4	7.7	7.2	7.4
27	7.7	7.5	7.6	7.5	7.3	7.4	7.6	7.3	7.4	7.2	7.1	7.1
28	7.7	7.6	7.6	7.3	7.3	7.3	7.8	7.3	7.5	7.4	7.1	7.2
29	7.7	7.6	7.6	7.5	7.3	7.4	7.9	7.6	7.7	7.5	7.2	7.3
30	7.7	7.6	7.7	7.4	7.3	7.4	7.8	7.7	7.7	7.4	7.3	7.3
31	7.7	7.6	7.7	---	---	---	7.9	7.7	7.8	7.4	7.3	7.3
MONTH	8.4	7.5	7.8	8.6	7.2	7.7	7.9	7.3	7.5	8.1	7.1	7.6

BEST DOCUMENT AVAILABLE

03072670 WHITELEY CREEK NEAR KIRBY, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.4	7.1	7.3	---	---	---	8.2	7.3	7.6	8.0	7.1	7.4
2	7.3	7.1	7.2	---	---	---	8.4	7.3	7.7	8.2	7.2	7.6
3	7.4	7.2	7.2	---	---	---	8.5	7.3	7.8	8.1	7.2	7.5
4	7.6	7.2	7.3	---	---	---	8.3	7.2	7.6	8.1	7.2	7.5
5	7.6	7.3	7.4	---	---	---	7.7	7.2	7.4	8.4	7.2	7.6
6	---	---	---	7.0	6.9	7.0	8.0	7.3	7.6	7.4	7.2	7.3
7	---	---	---	7.0	7.0	7.0	8.1	7.3	7.6	8.2	7.4	7.7
8	---	---	---	7.0	7.0	7.0	8.3	7.3	7.7	8.2	7.3	7.7
9	---	---	---	7.1	6.9	7.0	7.6	7.3	7.4	8.1	7.4	7.7
10	---	---	---	7.6	7.0	7.3	8.2	7.3	7.6	7.8	7.3	7.5
11	---	---	---	7.4	7.0	7.2	---	---	---	7.7	7.3	7.4
12	---	---	---	7.4	7.1	7.2	---	---	---	7.8	7.3	7.5
13	---	---	---	7.3	7.1	7.2	---	---	---	8.0	7.4	7.6
14	---	---	---	7.3	7.1	7.2	---	---	---	8.0	7.3	7.6
15	---	---	---	7.4	7.1	7.2	---	---	---	7.5	7.2	7.3
16	---	---	---	7.5	7.1	7.2	---	---	---	7.8	7.2	7.4
17	---	---	---	7.4	7.1	7.3	---	---	---	8.0	7.3	7.6
18	---	---	---	7.4	7.2	7.3	---	---	---	7.8	7.3	7.5
19	---	---	---	7.4	7.2	7.3	---	---	---	7.4	7.1	7.3
20	---	---	---	7.5	7.3	7.4	---	---	---	7.4	7.1	7.2
21	---	---	---	7.6	7.3	7.4	---	---	---	7.9	7.2	7.5
22	---	---	---	7.6	7.2	7.4	---	---	---	8.1	7.2	7.5
23	---	---	---	7.9	7.2	7.4	---	---	---	8.2	7.2	7.6
24	---	---	---	8.0	7.3	7.5	7.2	7.1	7.2	8.2	7.2	7.6
25	---	---	---	8.3	7.3	7.6	7.4	7.1	7.2	8.0	7.2	7.5
26	---	---	---	8.0	7.4	7.6	7.7	7.0	7.2	7.8	7.1	7.4
27	---	---	---	8.0	7.4	7.6	8.0	7.0	7.3	7.6	7.2	7.4
28	---	---	---	8.3	7.3	7.6	7.9	7.0	7.4	7.5	7.2	7.3
29	---	---	---	8.6	7.3	7.7	7.9	7.0	7.2	7.5	7.1	7.3
30	---	---	---	8.0	7.3	7.6	8.0	7.1	7.4	7.6	7.2	7.4
31	---	---	---	8.6	7.3	7.7	---	---	---	7.4	7.2	7.3
MONTH	7.6	7.1	7.3	8.6	6.9	7.3	8.5	7.0	7.5	8.4	7.1	7.5

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.5	7.2	7.4	7.7	7.5	7.6	---	---	---	7.9	7.4	7.7
2	7.6	7.2	7.4	8.0	7.5	7.7	---	---	---	7.6	7.3	7.5
3	7.5	7.2	7.3	8.1	7.6	7.8	---	---	---	7.9	7.4	7.6
4	7.7	7.2	7.4	8.0	7.5	7.7	---	---	---	7.7	7.4	7.5
5	7.7	7.2	7.5	7.9	7.5	7.7	---	---	---	7.9	7.6	7.7
6	7.3	7.0	7.1	8.1	7.7	7.8	---	---	---	7.7	7.5	7.6
7	7.3	7.1	7.2	8.2	7.6	7.8	---	---	---	7.9	7.6	7.7
8	7.5	7.3	7.3	8.1	7.6	7.6	---	---	---	7.8	7.5	7.6
9	7.6	7.3	7.4	8.1	7.6	7.8	---	---	---	8.1	7.5	7.8
10	7.4	6.8	7.1	8.2	7.7	7.9	---	---	---	8.1	7.7	7.8
11	7.3	7.1	7.2	8.3	7.7	8.0	---	---	---	8.0	7.7	7.8
12	7.5	7.2	7.3	8.3	7.7	8.0	---	---	---	8.0	7.6	7.8
13	7.4	7.2	7.3	7.9	7.5	7.7	---	---	---	8.0	7.5	7.7
14	7.3	7.0	7.1	8.0	7.5	7.7	8.2	7.6	7.9	8.1	7.7	7.9
15	7.3	7.0	7.2	8.1	7.4	7.7	7.9	7.7	7.8	7.8	7.5	7.7
16	7.5	7.2	7.3	8.2	7.7	7.9	8.0	7.6	7.7	7.8	7.5	7.7
17	7.4	7.3	7.4	8.3	7.8	8.0	8.0	7.6	7.8	7.9	7.5	7.7
18	7.5	7.3	7.4	8.2	7.7	7.9	8.1	7.8	7.9	8.0	7.7	7.8
19	7.6	7.3	7.4	8.1	7.6	7.8	8.2	7.8	8.0	8.0	7.6	7.8
20	7.6	7.3	7.4	---	---	---	8.2	7.9	8.0	8.0	7.6	7.7
21	7.7	7.3	7.4	---	---	---	8.1	7.8	7.9	8.1	7.6	7.8
22	7.7	7.1	7.3	---	---	---	8.2	7.8	8.0	8,1	7.7	7.9
23	7.4	7.2	7.3	---	---	---	8.1	7.8	7.9	8.1	7.5	7.8
24	7.6	7.3	7.5	---	---	---	8.0	7.6	7.9	8.2	7.7	7.9
25	7.6	7.3	7.5	---	---	---	8.1	7.8	8.0	8.3	7.7	7.9
26	7.7	7.4	7.5	---	---	---	8.1	7.9	8.0	8.2	7.6	7.9
27	7.7	7.5	7.6	---	---	---	8.1	7.8	7.9	8.0	7.6	7.8
28	7.7	7.5	7.6	---	---	---	8.0	7.6	7.8	8.1	7.7	7.8
29	7.8	7.5	7.7	---	---	---	8.1	7.6	7.8	8.1	7.8	8.0
30	7.9	7.5	7.7	---	---	---	8.0	7.6	7.8	8.0	7.7	7.8
31	---	---	---	---	---	---	8.0	7.4	7.7	---	---	---
MONTH	7.9	6.8	7.4	8.3	7.4	7.8	8.2	7.4	7.9	8.3	7.3	7.8

03072670 WHITELEY CREEK NEAR KIRBY, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	10.5	5.5	7.5	8.5	5.5	7.0	1.5	.5	1.0
2	---	---	---	8.5	3.5	6.0	8.5	5.5	7.0	1.5	.0	.5
3	---	---	---	10.0	3.0	6.5	5.5	3.0	4.0	.5	.0	.5
4	---	---	---	13.5	9.5	11.0	4.5	1.5	3.0	.5	.0	.5
5	---	---	---	10.5	7.0	9.0	6.0	4.5	5.0	.5	.5	.5
6	---	---	---	8.5	4.5	6.5	7.5	5.5	6.5	.5	.5	.5
7	---	---	---	12.5	5.0	9.5	9.5	7.5	8.5	.5	.0	.5
8	---	---	---	12.0	9.0	11.5	11.5	8.5	10.0	.5	.5	.5
9	---	---	---	12.5	8.0	10.0	11.0	8.0	9.0	.5	.5	.5
10	---	---	---	9.0	6.5	8.0	8.0	6.0	7.0	.5	.5	.5
11	---	---	---	7.0	5.0	6.0	6.0	4.5	5.5	.5	.5	.5
12	---	---	---	8.0	4.5	6.0	5.0	4.5	5.0	.5	.5	.5
13	---	---	---	8.5	3.5	6.0	6.5	4.0	5.5	.5	.5	.5
14	---	---	---	9.5	5.5	7.5	4.5	1.5	3.0	.5	.5	.5
15	---	---	---	9.5	7.5	9.0	4.0	1.0	2.5	.5	.5	.5
16	---	---	---	9.5	5.5	7.5	4.0	2.5	3.5	.5	.5	.5
17	16.0	11.0	13.5	6.5	3.5	5.0	3.0	1.0	2.0	.5	.5	.5
18	17.0	15.5	16.5	8.0	6.0	7.0	4.5	1.0	3.0	.5	.5	.5
19	16.0	12.5	14.0	8.0	5.0	7.0	4.0	.5	2.5	.5	.5	.5
20	13.0	10.0	10.5	7.5	3.0	5.0	.5	.0	.5	.5	.5	.5
21	14.0	9.0	11.5	5.5	2.5	4.5	.5	.5	.5	1.0	.5	.5
22	14.5	10.5	12.0	6.0	3.5	4.5	.5	.5	.5	1.0	.5	1.0
23	11.0	7.0	9.0	7.0	3.0	5.0	.5	.5	.5	1.5	.5	1.0
24	13.0	7.5	10.0	8.5	7.0	7.5	.5	.0	.5	3.0	.0	1.5
25	11.0	8.5	10.0	8.0	6.0	7.0	.5	.5	.5	2.0	.5	.5
26	8.5	7.0	7.5	6.0	4.0	5.0	.5	.5	.5	3.0	.5	2.0
27	9.5	5.5	7.5	6.5	5.0	5.5	.5	.5	.5	4.5	2.5	3.5
28	9.5	8.5	9.0	6.5	5.0	6.0	.5	.0	.5	4.0	1.5	2.5
29	11.0	7.0	8.5	5.0	4.5	5.0	.5	.0	.5	3.0	.5	1.5
30	10.0	4.5	7.0	7.0	4.5	5.5	.5	.0	.5	1.0	.5	.5
31	10.0	3.5	6.5	---	---	---	1.0	.5	.5	1.0	.5	1.0
MONTH	17.0	3.5	10.0	13.5	2.5	7.0	11.5	.0	3.5	4.5	.0	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	.5	1.0	---	---	---	14.0	8.0	11.0	13.5	10.5	12.0
2	2.5	.0	1.5	---	---	---	17.0	8.0	12.0	15.5	7.5	11.5
3	.0	.0	.0	---	---	---	17.5	7.0	13.0	18.0	7.5	12.5
4	.5	.0	.0	---	---	---	18.0	12.0	15.0	20.5	10.0	15.0
5	.5	.0	.5	---	---	---	15.0	9.0	13.0	21.0	13.0	17.0
6	---	---	---	5.0	3.0	4.0	12.0	6.0	8.5	18.5	12.5	15.5
7	---	---	---	4.0	2.5	3.0	15.0	3.0	9.0	18.5	10.0	13.5
8	---	---	---	4.0	2.5	3.0	18.5	7.0	13.0	20.0	9.0	14.5
9	---	---	---	5.5	3.0	4.0	16.0	9.5	13.0	22.0	11.0	16.5
10	---	---	---	7.0	2.5	4.5	15.0	6.0	11.5	20.5	14.0	17.0
11	---	---	---	6.0	3.0	4.5	---	---	---	21.0	16.0	18.0
12	---	---	---	9.5	1.0	5.0	---	---	---	17.5	12.5	14.0
13	---	---	---	10.0	3.0	6.0	---	---	---	20.0	10.5	14.5
14	---	---	---	7.0	1.0	4.0	---	---	---	23.5	14.0	18.0
15	---	---	---	9.0	.0	4.5	---	---	---	19.0	15.0	16.5
16	---	---	---	6.5	1.0	4.5	---	---	---	16.0	12.0	14.0
17	---	---	---	4.0	.5	2.0	---	---	---	20.0	10.0	15.0
18	---	---	---	6.0	.0	2.5	---	---	---	16.0	12.0	14.0
19	---	---	---	3.0	.5	1.5	---	---	---	12.0	10.5	11.0
20	---	---	---	4.5	.0	2.0	---	---	---	19.0	8.5	16.0
21	---	---	---	5.5	1.5	3.0	---	---	---	20.5	10.0	15.0
22	---	---	---	7.0	.0	3.5	---	---	---	21.5	11.0	16.5
23	---	---	---	10.0	2.0	6.0	---	---	---	20.0	12.5	16.5
24	---	---	---	8.5	1.0	5.0	11.5	8.0	9.5	24.0	15.0	19.0
25	---	---	---	9.5	2.5	6.0	10.0	7.0	8.5	24.0	16.0	20.0
26	---	---	---	11.0	1.5	6.5	15.5	6.5	11.0	24.5	17.5	21.0
27	---	---	---	10.0	4.0	8.0	19.5	10.5	14.5	22.0	19.0	20.5
28	---	---	---	13.5	1.5	7.0	19.5	11.0	15.5	21.0	18.5	19.5
29	---	---	---	15.0	4.0	10.0	18.0	14.0	15.5	19.5	18.0	18.5
30	---	---	---	13.0	9.5	11.0	14.5	12.0	13.0	23.0	16.0	19.5
31	---	---	---	18.5	8.5	13.0	---	---	---	23.0	17.5	20.0
MONTH	2.5	.0	.5	18.5	.0	5.0	19.5	3.0	12.0	24.5	7.5	16.0

03072670 WHITELEY CREEK NEAR KIRBY, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	14.0	16.5	23.5	20.5	22.0	---	---	---	26.0	20.5	22.5
2	24.0	16.5	20.0	24.5	19.0	21.5	---	---	---	24.5	21.5	23.0
3	24.5	19.0	21.5	25.5	19.5	22.5	---	---	---	24.5	21.5	23.0
4	22.5	20.0	21.0	26.5	20.5	23.5	---	---	---	24.5	21.0	22.5
5	23.0	17.5	19.5	23.0	21.0	22.0	---	---	---	25.5	20.5	23.0
6	18.0	16.0	17.0	26.0	20.0	22.5	---	---	---	23.5	19.5	21.5
7	22.0	14.0	17.5	28.5	21.0	24.5	---	---	---	24.0	18.5	21.0
8	22.5	13.5	18.0	28.5	21.5	24.5	---	---	---	22.5	19.0	20.5
9	21.5	18.0	19.5	28.5	23.5	26.0	---	---	---	23.0	16.0	19.5
10	17.5	15.5	16.5	30.0	24.0	26.5	---	---	---	21.0	14.0	17.5
11	20.0	14.0	16.5	28.0	19.0	23.5	---	---	---	23.0	16.5	19.0
12	23.0	15.0	18.5	28.5	20.0	23.5	---	---	---	25.0	18.5	21.0
13	22.0	17.5	20.0	25.0	21.0	22.5	---	---	---	24.0	19.0	21.0
14	21.0	18.0	19.0	27.5	22.0	24.0	25.5	19.0	22.5	24.5	19.0	21.5
15	24.5	16.5	20.0	25.5	18.5	22.0	23.5	22.0	22.5	23.0	20.0	21.0
16	26.5	17.5	21.5	23.0	20.5	21.5	24.0	21.0	22.0	20.5	18.0	19.0
17	23.0	18.5	20.5	26.5	19.0	22.5	23.0	16.5	20.0	20.0	15.5	17.5
18	24.0	16.0	20.0	27.5	19.5	23.0	22.0	15.0	18.0	17.0	13.5	15.5
19	25.0	18.5	21.5	25.5	20.0	22.5	23.0	15.5	18.5	17.5	15.0	16.0
20	23.0	20.0	21.5	---	---	---	23.5	15.5	19.5	17.5	14.0	15.5
21	24.0	19.0	21.0	---	---	---	21.5	15.0	18.5	20.5	14.0	16.5
22	21.0	17.5	19.5	---	---	---	24.0	16.5	20.0	17.5	15.0	16.5
23	22.5	15.5	18.5	---	---	---	20.5	16.0	18.0	16.0	11.5	13.5
24	24.0	16.0	20.0	---	---	---	22.0	16.5	19.0	16.5	9.5	12.5
25	24.0	19.0	21.5	---	---	---	21.5	16.0	19.0	16.5	10.5	13.5
26	23.0	17.5	20.0	---	---	---	22.5	16.0	19.0	20.0	14.0	16.5
27	23.0	15.5	19.0	---	---	---	23.0	16.5	19.5	19.0	16.5	17.5
28	24.0	15.0	19.5	---	---	---	24.5	18.5	21.0	17.5	13.0	15.0
29	25.5	17.0	21.0	---	---	---	26.0	19.5	22.5	14.5	9.5	12.0
30	27.0	20.0	23.0	---	---	---	24.0	21.0	22.5	17.0	13.5	14.5
31	---	---	---	---	---	---	23.5	20.0	21.5	---	---	---
MONTH	27.0	13.5	19.5	30.0	18.5	23.0	26.0	15.0	20.0	26.0	9.5	18.5

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.71	30	.06	.94	6	.02	8.5	65	1.5
2	.71	25	.05	.94	7	.02	8.5	60	1.4
3	.80	19	.04	.94	10	.03	8.5	55	1.3
4	.94	17	.04	1.1	10	.03	6.5	60	1.1
5	.71	15	.03	1.3	9	.03	5.0	70	.95
6	.80	12	.03	.80	9	.02	5.0	78	1.1
7	.71	13	.02	.80	8	.02	6.5	105	1.8
8	.80	17	.04	1.3	9	.03	7.4	120	2.4
9	.71	20	.04	1.7	9	.04	19	135	6.9
10	.63	22	.04	1.5	10	.04	20	100	5.4
11	.71	24	.05	1.5	9	.04	12	60	1.9
12	.56	25	.04	1.3	9	.03	8.5	50	1.1
13	.80	26	.06	1.1	15	.04	7.0	40	.76
14	.71	26	.05	1.1	14	.04	5.6	40	.60
15	.71	28	.05	1.1	13	.04	4.0	35	.38
16	.94	36	.09	1.1	12	.04	4.4	33	.39
17	.71	36	.07	8.5	204	17	3.2	30	.26
18	.80	50	.11	21	630	36	2.9	30	.23
19	.80	60	.13	8.3	505	11	2.6	28	.20
20	.71	70	.13	4.6	290	3.6	2.3	28	.17
21	.80	74	.16	3.2	140	1.2	2.2	29	.17
22	.71	60	.12	2.6	175	1.2	2.0	28	.15
23	.71	50	.10	2.0	240	1.3	1.9	26	.13
24	.71	31	.06	21	411	27	1.8	25	.12
25	9.3	259	6.5	17	120	5.5	1.8	25	.12
26	5.0	80	1.1	8.3	75	1.7	2.8	23	.17
27	2.3	23	.14	10	130	3.5	1.5	20	.08
28	1.7	13	.06	13	155	5.4	1.6	15	.06
29	1.5	8	.03	12	110	3.6	1.7	13	.06
30	1.1	7	.02	9.0	70	1.7	1.8	12	.06
31	.94	7	.02	---	---	---	1.9	10	.05
TOTAL	39.74	---	9.48	159.02	---	120.21	168.4	---	31.01

03072670 WHITELEY CREEK NEAR KIRBY, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	2.2	10	.06	23	274	39	14	36	1.4
2	2.5	10	.07	86	795	215	11	23	.68
3	1.9	10	.05	20	360	19	8.0	15	.32
4	1.7	12	.06	13	215	7.5	7.2	11	.21
5	1.6	12	.05	6.4	160	2.8	23	95	5.9
6	1.5	12	.05	3.6	140	1.4	19	88	4.5
7	1.4	12	.05	3.7	130	1.3	13	48	1.7
8	1.4	15	.06	3.9	170	1.8	9.2	18	.45
9	1.3	17	.06	4.0	100	1.1	7.4	18	.36
10	1.3	20	.07	4.4	105	1.2	6.3	20	.34
11	1.2	18	.06	15	200	8.1	7.2	24	.47
12	1.2	18	.06	21	195	11	6.2	18	.30
13	1.2	16	.05	13	180	6.3	4.9	14	.19
14	1.2	15	.05	10	175	4.7	3.6	10	.10
15	1.1	15	.04	9.0	160	3.9	3.3	11	.10
16	1.1	15	.04	8.5	160	3.7	11	118	3.5
17	1.1	17	.05	19	170	8.7	11	28	.83
18	1.1	17	.05	19	100	5.1	7.0	37	.70
19	1.1	19	.06	17	53	2.4	5.6	31	.47
20	1.1	20	.06	38	452	74	5.2	27	.38
21	1.3	22	.08	49	340	45	4.8	25	.32
22	1.5	22	.09	21	130	7.4	4.4	23	.27
23	1.8	26	.13	80	370	80	3.6	20	.19
24	2.2	24	.14	34	135	12	3.2	18	.16
25	3.0	40	.32	18	78	3.8	2.6	16	.11
26	20	423	31	12	40	1.3	2.6	16	.11
27	21	185	10	8.7	33	.78	3.2	13	.11
28	13	60	2.1	13	50	1.8	2.3	10	.06
29	7.9	33	.70	---	---	---	2.3	8	.05
30	4.5	30	.36	---	---	---	2.3	8	.05
31	5.6	30	.45	---	---	---	2.6	8	.06
TOTAL	110.0	---	46.47	573.2	---	570.08	217.0	---	24.39

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	2.6	7	.05	6.0	7	.11	1.7	21	.10
2	2.6	7	.05	4.8	5	.06	1.7	17	.08
3	2.3	7	.04	3.6	5	.05	1.7	15	.07
4	2.1	7	.04	3.2	5	.04	2.0	32	.17
5	2.6	6	.04	2.9	5	.04	25	486	79
6	2.0	5	.03	3.6	4	.04	79	182	51
7	1.7	6	.03	3.2	4	.03	20	52	2.8
8	1.6	8	.03	2.0	4	.02	8.5	25	.57
9	2.4	23	.15	1.5	4	.02	28	269	28
10	2.2	17	.10	1.3	10	.04	140	294	161
11	30	737	161	2.0	5	.03	27	55	4.0
12	273	1280	1350	1.7	8	.04	13	28	.98
13	125	288	121	1.5	9	.04	13	56	4.8
14	45	154	20	1.3	10	.04	66	179	45
15	24	60	3.9	6.0	37	.60	22	57	3.4
16	15	27	1.1	3.6	14	.14	12	43	1.4
17	15	58	2.3	2.3	9	.06	7.5	17	.34
18	18	40	1.9	2.3	8	.05	4.4	16	.19
19	13	21	.74	10	55	1.5	2.9	14	.11
20	9.8	15	.40	11	27	.80	2.6	14	.10
21	6.7	12	.22	6.5	12	.21	7.1	226	20
22	5.6	8	.12	3.6	8	.08	35	386	54
23	12	64	2.1	2.6	7	.05	14	38	1.4
24	17	33	1.5	2.0	12	.06	6.5	32	.56
25	15	16	.65	1.7	14	.06	5.9	27	.43
26	12	9	.29	1.5	16	.06	4.5	23	.28
27	13	9	.32	1.5	12	.05	2.5	12	.08
28	10	10	.27	2.0	15	.08	1.6	10	.04
29	9.0	9	.22	1.5	17	.07	1.4	10	.04
30	7.0	8	.15	1.7	25	.11	1.6	16	.07
31	---	---	---	4.0	33	.36	---	---	---
TOTAL	697.2	---	1668.74	102.4	---	4.94	558.1	---	460.01

BEST DOCUMENT AVAILABLE

03072670 WHITELEY CREEK NEAR KIRBY, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	2.6	50	.35	.58	17	.03	2.0	50	.27
2	2.3	34	.21	.66	11	.02	3.6	70	.68
3	1.4	30	.11	.77	15	.03	4.0	36	.39
4	.80	29	.06	.78	18	.04	4.4	36	.43
5	.78	21	.04	.87	18	.04	2.0	37	.20
6	1.2	29	.09	.90	21	.05	.80	26	.06
7	.76	22	.05	.85	20	.05	.80	21	.05
8	.71	14	.03	.75	14	.03	.90	25	.06
9	1.1	24	.07	.59	10	.02	1.7	30	.14
10	.73	33	.07	.82	21	.05	.90	25	.06
11	.60	35	.06	.71	18	.03	.71	33	.06
12	.52	37	.05	.62	13	.02	.80	29	.06
13	3.1	44	.37	.57	10	.02	.63	26	.04
14	1.2	30	.10	1.1	25	.07	1.3	18	.06
15	1.0	25	.07	.40	20	.02	2.6	18	.13
16	.88	32	.08	.29	26	.02	1.5	18	.07
17	.75	24	.05	.37	30	.03	1.1	16	.05
18	.57	20	.03	.60	32	.05	1.3	13	.05
19	.44	15	.02	.96	36	.09	.80	13	.03
20	.64	60	.10	.62	35	.06	.55	12	.02
21	.93	45	.11	.39	34	.04	1.1	12	.04
22	.72	25	.05	.69	32	.06	1.1	10	.03
23	.63	20	.03	.18	30	.01	.71	8	.02
24	.66	15	.03	.35	44	.04	.90	8	.02
25	.62	17	.03	.80	51	.11	.71	8	.02
26	.58	20	.03	.51	48	.07	.71	10	.02
27	1.4	25	.09	.47	45	.06	.63	10	.02
28	1.9	20	.10	.54	42	.06	.63	9	.02
29	1.3	15	.05	.84	40	.09	.80	9	.02
30	.80	10	.02	.48	38	.05	.71	10	.02
31	.85	25	.06	1.8	36	.17	---	---	---
TOTAL	32.47	---	2.61	20.86	---	1.53	40.39	---	3.14
YEAR	2718.78		2942.61						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, JUNE 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
JUN 09...	1230	48	19.5	222	29	52	64	80	92	95	98	100

03073000 SOUTH FORK TENMILE CREEK AT JEFFERSON, PA

LOCATION.--Lat 39°55'23", long 80°04'22", Greene County, Hydrologic Unit 05020005, on right bank at downstream side of bridge on State Highway 188, 1 mi (2 km) southwest of Jefferson, and 3.1 mi (5.0 km) downstream from Ruff Creek.

DRAINAGE AREA.--180 mi^2 (466 km^2).

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for October 1931, published in WSP 1305.

REVISED RECORDS.--WSP 1305: 1949. WSP 1435: 1932-34, 1935 (M).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 852.54 ft (259.854 m) National Geodetic Vertical Datum, adjustment of 1907. Prior to Oct. 21, 1938, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Slight diversion into basin during winter months from Monongahela River for Waynesburg water supply. Some regulation from reservoirs and pumpage above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years, 204 ft^3/s (5.777 m^3/s), 15.39 in/yr (391 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,800 ft^3/s (391 m^3/s) June 4, 1941, gage height, 18.45 ft (5.624 m), from floodmark in gage house, from rating curve extended above 7,600 ft^3/s (220 m^3/s) on basis of slope-area measurement of peak flow; minimum observed, 0.05 ft^3/s (0.001 m^3/s) Sept. 3, 1938, gage height, 0.36 ft (0.110 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft^3/s (99.1 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 2	---	---	---	ice jam		July 29	0400	3520	99.7	7.88	2.402
Apr. 13	0300	*10300	292	*15.49	4.721						

Minimum discharge, 5.3 ft^3/s (0.15 m^3/s) Aug. 29, gage height, 0.94 ft (0.287 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	26	160	54	160	472	103	208	268	456	72	47
2	14	25	720	58	240	371	95	164	163	191	51	132
3	14	23	265	60	862	290	81	130	158	119	39	279
4	13	22	206	56	532	239	76	108	469	86	87	491
5	14	23	169	52	311	525	83	80	1040	170	64	231
6	14	24	151	48	210	525	78	95	2180	82	40	89
7	13	21	155	54	180	382	58	91	888	54	35	54
8	12	23	221	60	160	296	57	59	434	44	32	41
9	12	35	480	54	150	245	62	55	509	38	27	49
10	11	44	861	52	190	213	71	51	1480	34	23	33
11	10	39	481	47	1230	206	86	57	875	27	19	25
12	8.6	30	345	45	737	171	4500	87	454	23	18	22
13	8.4	26	286	47	488	150	5460	62	287	24	16	20
14	8.1	25	208	48	421	130	1730	54	1890	90	14	19
15	8.0	24	164	50	352	120	1020	180	965	38	13	35
16	7.5	60	130	48	303	484	597	187	456	26	15	38
17	7.4	150	96	46	569	381	457	121	604	25	13	27
18	9.5	320	74	45	678	283	484	90	303	22	13	23
19	25	150	64	43	611	234	357	141	192	18	11	20
20	27	110	56	42	1140	198	285	246	146	19	9.9	19
21	17	92	58	46	1370	177	196	151	246	57	8.3	17
22	14	80	62	50	759	166	183	107	1160	59	8.1	14
23	12	72	56	56	1100	162	224	58	485	33	7.8	12
24	9.6	90	64	64	1600	146	321	37	243	23	7.1	12
25	155	400	60	76	547	131	306	45	274	21	7.3	11
26	338	270	52	120	399	113	260	48	404	22	7.1	9.4
27	107	200	48	300	335	143	321	49	198	245	6.4	8.6
28	64	190	46	496	392	136	340	88	122	511	6.0	7.4
29	51	180	47	190	---	127	311	120	82	1560	5.6	7.4
30	38	170	60	150	---	121	255	140	73	324	6.6	7.4
31	30	---	56	140	---	121	---	720	---	133	33	---
TOTAL	1086.1	2944	5901	2697	16026	7458	18457	3829	17048	4574	715.2	1800.2
MEAN	35.0	98.1	190	87.0	572	241	615	124	568	148	23.1	60.0
MAX	338	400	861	496	1600	525	5460	720	2180	1560	87	491
MIN	7.4	21	46	42	150	113	57	37	73	18	5.6	7.4
CFSM	.19	.55	1.06	.48	3.18	1.34	3.42	.69	3.16	.82	.13	.33
IN.	.22	.61	1.22	.56	3.31	1.54	3.81	.79	3.52	.95	.15	.37

CAL YR 1980 TOTAL 100340.1 MEAN 274 MAX 3860 MIN 7.4 CFSM 1.52 IN 20.74
WTR YR 1981 TOTAL 82535.5 MEAN 226 MAX 5460 MIN 5.6 CFSM 1.26 IN 17.06

03073030 CASTILE RUN AT CLARKSVILLE, PA

LOCATION.--Lat 39°57'44", long 80°03'12", Greene County, Hydrologic Unit 05020005, on right bank at downstream side of bridge, 500 ft (152 m) upstream from mouth and 0.8 miles (1.3 km) southwest of Clarksville.

DRAINAGE AREA.--6.21 mi² (16.1 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 810 ft (247 m) from topographic map.

REMARKS.--Records good, except for those for winter period, which are fair. Some regulation at low flow by mine pumpage above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 545 ft³/s (15.4 m³/s) Apr. 13, 1981, gage height, 5.76 ft (1.756 m); minimum 0.28 ft³/s (0.008 m³/s) Oct. 10, 1980, gage height, 2.06 ft (0.628 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 13	0500	*545	15.4	*5.76	1.756	Sept. 1	2130	315	8.92	4.15	1.265
July 28	2100	290	8.21	4.85	1.478						

Minimum discharge, 0.28 ft³/s (0.008 m/s) Oct. 10, gage height, 2.06 ft (0.628 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	1.2	4.1	1.5	10	12	4.8	6.0	5.0	8.3	3.8	26
2	.88	1.1	4.3	1.4	19	11	4.2	5.4	4.0	4.4	3.2	29
3	.88	.88	4.3	1.3	10	9.2	4.0	4.8	4.6	3.6	3.0	26
4	.68	1.1	4.3	1.3	7.0	8.6	3.8	4.4	8.7	2.8	5.6	24
5	.60	.88	3.7	1.2	5.6	14	4.2	4.2	7.6	2.7	3.4	11
6	.60	.88	3.5	1.3	4.5	13	3.7	4.4	18	2.5	3.0	6.8
7	.60	.98	3.7	1.4	4.3	10	3.4	4.0	14	2.1	3.2	5.8
8	.53	1.7	4.1	1.2	4.4	8.9	3.4	3.2	8.1	1.8	2.5	7.2
9	.40	1.3	13	1.3	4.5	8.1	3.8	3.0	17	1.5	2.2	5.4
10	.53	1.2	13	1.4	8.0	7.6	3.4	3.0	32	1.4	1.9	4.0
11	.68	.98	8.5	1.6	13	7.3	8.3	3.8	20	1.1	2.4	3.3
12	.68	.98	6.8	1.8	7.4	6.4	118	3.0	13	1.0	1.9	3.1
13	.60	1.1	5.9	2.0	12	6.1	99	2.7	14	2.2	1.8	2.6
14	.53	1.1	4.7	2.3	7.0	5.2	56	2.5	33	1.4	1.3	2.6
15	.60	.98	4.0	1.9	6.0	5.2	34	4.6	18	1.1	1.4	4.0
16	.46	.98	3.4	1.5	8.5	10	24	3.0	15	1.0	1.6	3.1
17	.53	4.1	3.0	1.2	14	8.6	19	2.5	14	.93	1.3	2.4
18	1.4	8.5	2.7	1.0	15	7.7	17	2.4	9.2	.86	1.2	2.2
19	.88	3.3	2.4	.90	14	6.8	13	3.8	7.4	.80	1.1	2.2
20	.60	2.6	2.2	1.0	33	6.7	10	3.0	6.4	1.4	1.1	1.9
21	.68	1.9	2.0	1.2	29	6.1	8.8	2.5	20	1.4	1.2	1.7
22	.88	1.7	2.1	1.4	18	5.9	7.8	2.2	29	1.1	1.1	1.7
23	1.1	1.7	2.4	1.7	38	5.7	9.2	2.1	13	.93	.93	1.7
24	.88	8.1	1.7	1.5	25	5.3	8.1	1.9	8.1	1.1	.93	1.9
25	8.7	7.1	1.4	2.5	17	5.0	8.1	1.9	11	.70	.86	1.7
26	3.5	4.1	1.6	12	13	4.6	6.7	1.9	6.7	6.4	.80	1.5
27	2.0	4.5	1.8	7.0	11	6.3	6.4	2.4	5.0	5.8	.93	1.4
28	1.7	5.0	2.3	4.0	12	5.2	7.4	5.0	4.4	40	.80	1.4
29	1.5	5.0	2.5	3.2	---	5.2	7.4	4.4	3.8	19	.70	1.5
30	1.4	4.5	2.0	4.2	---	5.4	6.4	5.8	4.2	6.4	6.8	1.4
31	1.2	---	1.7	5.6	---	4.7	---	13	---	4.4	9.2	---
TOTAL	37.08	79.44	123.1	72.80	370.2	231.8	513.3	116.8	374.2	130.12	71.15	188.5
MEAN	1.20	2.65	3.97	2.35	13.2	7.48	17.1	3.77	12.5	4.20	2.30	6.28
MAX	8.7	8.5	13	12	38	14	118	13	33	40	9.2	29
MIN	.40	.88	1.4	.90	4.3	4.6	3.4	1.9	3.8	.70	.70	1.4
CFSM	.19	.43	.64	.38	2.13	1.21	2.75	.61	2.01	.68	.37	1.01
IN.	.22	.48	.74	.44	2.22	1.39	3.07	.70	2.24	.78	.43	1.13

CAL YR 1980 TOTAL 2448.46 MEAN 6.69 MAX 76 MIN .40 CFSM 1.08 IN 14.66
WTR YR 1981 TOTAL 2308.49 MEAN 6.32 MAX 118 MIN .40 CFSM 1.02 IN 13.83

03073030 CASTILE RUN AT CLARKSVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
pH: October 1979 to current year.
WATER TEMPERATURE: October 1979 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor and automatic sediment sampler since October 1979.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality monitor record, samples were collected approximately once a month.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,610 micromhos Aug. 29, 1981; minimum, 61 micromhos Feb. 23, 1981.
pH: Maximum 9.1 on several days; minimum 7.4 July 28, Aug. 30, 1981.
WATER TEMPERATURE: Maximum 28.5°C July 20, 1980; minimum, freezing point on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 2,770 mg/L Aug. 30, 1981, minimum daily, 1 mg/L on several days. Feb. 3-5, 8-11, 1980.
SEDIMENT DISCHARGES: Maximum daily, 898 tons (815 tonnes) Apr. 12, 1981; minimum daily, 0.0 ton (0.0 tonne) on several days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2,610 micromhos Aug. 29; minimum, 61 micromhos Feb. 23.
pH: Maximum, 9.0 Mar. 13, 23; minimum, 7.4 July 28, Aug. 30.
WATER TEMPERATURE: Maximum, 26.5°C July 9, 10; minimum, freezing point on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 2,770 mg/L Aug. 30 minimum daily, 1 mg/L Aug. 12-29.
SEDIMENT DISCHARGES: Maximum daily, 898 tons (815 tonnes) Apr. 12; minimum daily, 0.0 ton (0.0 tonne) Aug. 12-29.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT										
17...	0945	.52	2020	8.3	9.0	--	--	--	--	--
NOV										
21...	0900	2.6	1150	8.1	.0	--	.0	--	--	--
DEC										
08...	1345	3.7	1900	8.7	10.5	--	--	--	--	--
JAN										
15...	0900	2.2	1120	8.0	.0	--	.0	--	--	--
FEB										
10...	1000	6.5	650	8.1	.0	--	.0	--	--	--
MAR										
10...	1030	6.6	720	8.7	4.0	--	--	--	--	--
APR										
13...	1230	51	440	7.9	12.5	--	2.0	--	--	--
MAY										
12...	1130	3.4	955	8.4	12.0	--	--	--	--	--
JUN										
02...	1300	4.1	1010	8.5	17.5	--	--	--	--	--
09...	1030	32	600	8.0	18.0	--	.0	--	--	--
09...	1440	21	455	8.3	21.0	--	--	--	--	--
JUL										
30...	1330	3.9	620	8.2	18.0	--	.0	--	--	--
AUG										
19...	1445	1.2	2600	8.5	19.0	540	--	140	45	410
SEP										
14...	1030	2.3	1030	8.3	18.0	--	--	--	--	--

03073030 CASTILE RUN AT CLARKSVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT									
17...	--	290	--	238	480	230	--	--	1350
NOV									
21...	--	260	--	210	240	94	--	--	729
DEC									
08...	--	170	24	180	420	210	--	--	1190
JAN									
15...	--	260	--	220	220	85	--	--	726
FEB									
10...	--	230	--	190	130	18	--	--	411
MAR									
10...	--	160	19	160	150	35	--	--	455
APR									
13...	--	98	--	80	100	14	--	--	290
MAY									
12...	--	150	48	200	240	57	--	--	651
JUN									
02...	--	180	14	190	240	70	--	--	677
09...	--	190	--	150	140	30	--	--	413
09...	--	160	--	130	88	16	--	--	309
JUL									
30...	--	180	--	150	120	17	--	--	429
AUG									
19...	5.2	220	2	190	730	320	.3	6.1	2000
SEP									
14...	--	240	--	200	210	65	--	--	682

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
17...	--	--	--	140	30	20	10	--	--
NOV									
21...	--	--	--	190	10	20	10	--	--
DEC									
08...	--	--	--	330	20	10	20	--	--
JAN									
15...	--	--	--	80	0	10	0	--	--
FEB									
10...	--	--	--	230	10	10	10	--	--
MAR									
10...	--	--	--	90	0	40	10	--	--
APR									
13...	--	--	--	2500	80	330	100	--	--
MAY									
12...	--	--	--	150	10	30	20	--	--
JUN									
02...	--	--	--	290	40	30	20	--	--
09...	--	--	--	22000	20	1500	30	--	--
09...	--	--	--	4200	30	280	30	--	--
JUL									
30...	--	--	--	1700	10	70	10	--	--
AUG									
19...	.09	200	40	690	50	20	10	20	10
SEP									
14...	--	--	--	210	20	10	20	--	--

03073030 CASTILE RUN AT CLARKSVILLE, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2580	2570	2570	2560	2200	2280	1460	906	1080			
2	2570	2570	2570	2360	2210	2270	1430	958	1230			
3	2570	2100	2420	2560	2220	2320	1600	1040	1300			
4	2080	1860	1950	2240	2010	2110	1640	1210	1490			
5	1860	1730	1780	2030	1870	1950	1870	1420	1670			
6	1730	1570	1650	1930	1830	1880	1850	1410	1670			
7	1630	1420	1550	2220	1900	2050	1830	1450	1700			
8	1570	1540	1560	2260	2060	2190	1750	1200	1590			
9	1590	1460	1540	2270	2090	2180	1540	606	1120			
10	1560	1430	1470	2260	2130	2180	938	520	712			
11	1530	1380	1480	2290	2190	2230	1100	738	905			
12	2560	1550	2220	2270	2160	2210	1090	772	893			
13	2570	2560	2560	2490	2190	2320	970	772	847			
14	2560	2560	2560	2340	2130	2200	1440	830	1020			
15	2570	2510	2550	2170	2070	2130	1510	954	1220			
16	2510	2270	2400	2090	1940	1990	1430	856	1180			
17	2260	1910	2040	1980	1190	1760	1490	1160	1400			
18	1920	1410	1640	1460	810	932	1410	910	1080			
19	1540	1440	1470	---	---	---	1540	926	1250			
20	1440	1360	1400	---	---	---	1640	1260	1480			
21	1360	1280	1310	---	---	---	---	---	---			
22	1290	1260	1270	---	---	---	---	---	---			
23	1590	1270	1350	---	---	---	---	---	---			
24	2570	1700	2440	---	---	---	---	---	---			
25	2570	1260	2020	---	---	---	---	---	---			
26	2060	1220	1630	1550	1070	1340	---	---	---			
27	2540	1950	2310	1730	1320	1510	---	---	---			
28	2560	2280	2430	1530	1200	1400	---	---	---			
29	2570	2560	2560	1590	1140	1440	---	---	---			
30	2560	2240	2380	1540	1050	1380	---	---	---			
31	2560	2240	2340	---	---	---	---	---	---			
MONTH	2580	1220	1980	2560	810	1920	1870	520	1240			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	645	485	535	1130	814	1010	912	684	797
2	---	---	---	857	517	663	1240	862	1020	1060	806	943
3	---	---	---	904	550	653	1110	720	891	1100	794	935
4	---	---	---	900	582	702	1050	822	955	1160	902	1020
5	---	---	---	698	443	553	1000	896	958	1070	884	981
6	---	---	---	557	448	540	1630	862	1250	1030	868	959
7	---	---	---	842	470	606	1450	934	1080	1190	904	1130
8	---	---	---	865	488	593	1620	1020	1320	1150	938	1030
9	---	---	---	792	512	575	1710	594	1540	1130	954	1030
10	---	---	---	811	473	558	1740	1350	1560	1090	904	1020
11	---	---	---	764	515	619	1650	966	1430	1030	932	984
12	---	---	---	690	463	548	596	174	309	1070	960	1020
13	---	---	---	654	443	537	518	214	382	1020	814	880
14	---	---	---	665	488	558	518	300	391	1530	870	1270
15	---	---	---	950	602	808	540	356	459	1500	1130	1290
16	---	---	---	1040	594	776	572	464	512	1250	958	1130
17	---	---	---	1010	556	723	672	480	562	1140	928	1050
18	600	426	466	1010	562	777	664	548	613	1270	996	1150
19	756	476	572	1060	594	732	736	578	669	992	762	861
20	474	84	296	1190	612	838	730	584	674	802	762	776
21	436	82	290	980	644	814	786	622	736	782	712	750
22	659	354	524	1170	688	944	910	782	855	770	700	739
23	619	61	335	1130	700	876	924	758	859	954	706	761
24	566	248	386	860	636	767	770	712	748	1210	960	1090
25	990	421	646	974	628	808	1290	684	761	1210	922	1070
26	1250	498	856	996	630	832	1300	670	932	---	---	---
27	1170	658	954	1040	648	854	888	604	738	---	---	---
28	927	555	720	1050	636	804	1030	678	799	---	---	---
29	---	---	---	1100	684	921	782	540	623	---	---	---
30	---	---	---	1360	766	1110	770	592	687	---	---	---
31	---	---	---	1260	724	920	---	---	---	---	---	---
MONTH	1250	61	550	1360	443	727	1740	174	844	1530	684	987

BEST DOCUMENT AVAILABLE

03073030 CASTILE RUN AT CLARKSVILLE, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	644	380	504	2270	698	1470	820	174	631
2	---	---	---	674	582	631	2050	1150	1380	514	284	420
3	---	---	---	1730	622	1090	1160	1080	1120	1010	388	476
4	1110	514	789	1620	1030	1330	1090	710	869	974	508	696
5	636	548	582	1420	954	1230	1030	816	916	1100	548	842
6	652	404	530	1510	1260	1380	2200	1050	1620	1320	862	1130
7	848	452	630	1520	1220	1440	2320	1770	2170	1520	1150	1360
8	1030	612	787	1620	1280	1480	2240	1810	2110	1490	946	1260
9	914	478	610	1620	1220	1440	2310	2230	2250	1050	874	969
10	758	320	483	1360	1190	1270	2320	2240	2290	1100	962	1020
11	734	452	576	1240	1080	1150	2240	1890	1990	1140	1040	1090
12	834	570	676	1180	1050	1140	1950	1590	1850	1210	1030	1110
13	862	498	713	1550	996	1260	1890	1580	1680	1300	1110	1190
14	544	314	446	1630	1160	1400	1900	1580	1760	1140	894	1010
15	666	466	564	1880	1600	1680	1590	1430	1530	952	768	866
16	736	534	628	2020	1880	1930	2400	1500	2050	866	822	844
17	768	532	613	2030	1930	1990	2600	2400	2530	900	860	878
18	832	690	755	2220	2020	2070	2600	2590	2590	864	772	814
19	876	742	813	2580	2230	2360	2600	2590	2590	800	754	781
20	1100	754	875	2550	1970	2230	2590	2520	2550	784	726	759
21	904	276	757	2240	1840	2030	2600	2400	2550	792	718	761
22	526	356	441	2600	1940	2480	2600	2590	2600	794	758	779
23	650	480	523	2540	1510	2200	2600	2590	2600	821	762	799
24	878	660	795	2020	1390	1700	2600	2590	2600	1600	785	1040
25	1040	560	765	1980	1510	1830	2600	2590	2600	2000	1610	1800
26	950	600	701	1840	668	1340	2590	2330	2550	2020	1810	1910
27	634	602	618	878	560	729	2310	2120	2200	1880	1480	1690
28	702	612	644	936	162	623	2600	2030	2240	1480	1290	1360
29	702	630	664	540	288	441	2610	2590	2600	1330	1170	1270
30	666	576	636	642	540	599	2600	562	1890	1260	1210	1240
31	---	---	---	698	642	671	1180	392	864	---	---	---
MONTH	1110	276	652	2600	162	1410	2610	392	2020	2020	174	1030

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.5	8.3	8.3	8.6	8.4	8.5	8.8	8.3	8.5			
2	8.5	8.3	8.4	8.6	8.5	8.5	8.6	8.3	8.4			
3	8.5	8.3	8.4	8.6	8.4	8.5	8.7	8.4	8.5			
4	8.5	8.3	8.4	8.6	8.3	8.4	8.7	8.4	8.5			
5	8.5	8.4	8.4	8.7	8.3	8.5	8.7	8.4	8.5			
6	8.5	8.4	8.4	8.7	8.4	8.5	8.7	8.3	8.4			
7	8.5	8.3	8.4	8.6	8.3	8.4	8.7	8.2	8.4			
8	8.5	8.3	8.4	8.6	8.0	8.4	8.9	8.2	8.4			
9	8.5	8.3	8.4	8.6	8.3	8.4	8.4	8.1	8.2			
10	8.5	8.3	8.4	8.7	8.4	8.5	8.4	8.1	8.3			
11	8.5	8.2	8.3	8.8	8.4	8.6	8.7	8.2	8.4			
12	8.5	8.3	8.4	8.8	8.4	8.6	8.6	8.3	8.4			
13	8.5	8.4	8.4	8.8	8.4	8.5	8.6	8.3	8.4			
14	8.5	8.3	8.4	8.8	8.3	8.5	8.7	8.4	8.5			
15	8.5	8.3	8.4	8.6	8.3	8.4	8.7	8.4	8.5			
16	8.5	8.2	8.3	8.8	8.4	8.6	8.5	8.3	8.4			
17	8.5	8.2	8.3	8.7	8.2	8.5	8.8	8.4	8.6			
18	8.3	8.1	8.1	8.4	8.2	8.3	8.8	8.3	8.5			
19	8.4	8.2	8.3	---	---	---	8.8	8.3	8.5			
20	8.5	8.2	8.3	---	---	---	8.7	8.4	8.5			
21	8.4	8.2	8.3	---	---	---	---	---	---			
22	8.5	8.2	8.3	---	---	---	---	---	---			
23	8.5	8.2	8.3	---	---	---	---	---	---			
24	8.5	8.3	8.4	---	---	---	---	---	---			
25	8.3	8.1	8.2	---	---	---	---	---	---			
26	8.4	8.2	8.3	8.6	8.3	8.4	---	---	---			
27	8.5	8.3	8.4	8.6	8.3	8.4	---	---	---			
28	8.4	8.3	8.4	8.6	8.3	8.4	---	---	---			
29	8.5	8.4	8.4	8.6	8.4	8.5	---	---	---			
30	8.5	8.4	8.4	8.7	8.4	8.5	---	---	---			
31	8.5	8.4	8.5	---	---	---	---	---	---			
MONTH	8.5	8.1	8.4	8.8	8.0	8.5	8.9	8.1	8.4			

03073030 CASTILE RUN AT CLARKSVILLE, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	8.3	8.0	8.1	8.5	8.2	8.3	8.5	8.2	8.3
2	---	---	---	8.4	8.1	8.2	8.5	8.2	8.4	8.5	8.2	8.4
3	---	---	---	8.4	8.1	8.2	8.5	8.2	8.3	8.5	8.2	8.3
4	---	---	---	8.4	8.1	8.2	8.4	8.2	8.3	8.4	8.1	8.3
5	---	---	---	8.1	8.0	8.1	8.4	8.2	8.3	8.4	8.1	8.2
6	---	---	---	8.6	8.0	8.3	8.5	8.3	8.4	8.3	8.1	8.2
7	---	---	---	8.7	8.3	8.5	8.5	8.3	8.4	8.4	8.3	8.3
8	---	---	---	8.8	8.3	8.5	8.5	8.3	8.4	8.5	8.3	8.4
9	---	---	---	8.9	8.3	8.5	8.5	8.3	8.4	8.4	8.2	8.3
10	---	---	---	8.9	8.3	8.5	8.5	8.2	8.4	8.4	8.2	8.3
11	---	---	---	8.9	8.3	8.5	8.5	7.8	8.3	8.4	8.2	8.3
12	---	---	---	8.9	8.3	8.6	8.0	7.5	7.8	8.5	8.3	8.4
13	---	---	---	9.0	8.4	8.6	8.0	7.5	7.9	8.5	8.2	8.4
14	---	---	---	8.9	8.4	8.6	8.1	7.8	8.0	8.4	8.2	8.3
15	---	---	---	8.9	8.3	8.6	8.2	8.0	8.1	8.5	8.2	8.3
16	---	---	---	8.8	8.3	8.5	8.3	8.1	8.2	8.5	8.3	8.4
17	---	---	---	8.8	8.3	8.5	8.3	8.1	8.2	8.5	8.2	8.4
18	8.2	8.0	8.1	8.7	8.4	8.5	8.4	8.2	8.3	8.5	8.2	8.4
19	8.2	7.9	8.0	8.9	8.4	8.6	8.5	8.2	8.3	8.5	8.3	8.4
20	8.0	7.7	7.9	8.9	8.4	8.6	8.6	8.3	8.4	8.5	8.2	8.3
21	7.9	7.7	7.9	8.9	8.4	8.6	8.7	8.3	8.4	8.5	8.2	8.3
22	8.1	7.9	8.0	8.9	8.3	8.6	8.7	8.2	8.5	8.5	8.2	8.3
23	8.0	7.7	7.9	9.0	8.3	8.6	8.7	8.2	8.4	8.5	8.1	8.3
24	8.0	7.8	8.0	8.9	8.3	8.6	8.8	8.2	8.5	8.4	8.1	8.3
25	8.1	8.0	8.0	8.9	8.3	8.6	8.8	8.3	8.5	8.4	8.1	8.2
26	8.2	8.1	8.1	8.8	8.3	8.5	8.9	8.2	8.5	---	---	---
27	8.3	8.1	8.2	8.8	8.3	8.5	8.8	8.2	8.5	---	---	---
28	8.2	8.0	8.1	8.7	8.3	8.5	8.8	8.2	8.4	---	---	---
29	---	---	---	8.7	8.2	8.4	8.6	8.2	8.3	---	---	---
30	---	---	---	8.5	8.2	8.4	8.6	8.2	8.4	---	---	---
31	---	---	---	8.5	8.2	8.3	---	---	---	---	---	---
MONTH	8.3	7.7	8.0	9.0	8.0	8.5	8.9	7.5	8.3	8.5	8.1	8.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	8.4	7.9	8.2	8.3	8.2	8.2	8.1	7.6	7.9
2	---	---	---	8.4	8.2	8.3	8.4	8.2	8.3	8.0	7.5	7.8
3	---	---	---	8.4	8.2	8.3	8.4	8.2	8.3	7.9	7.5	7.9
4	8.3	8.1	8.1	8.4	8.2	8.3	8.4	8.0	8.2	8.0	7.8	8.0
5	8.4	8.1	8.2	8.3	8.2	8.2	8.4	8.1	8.2	8.2	8.0	8.1
6	8.2	7.9	8.1	8.3	8.2	8.2	8.4	8.2	8.3	8.3	8.1	8.2
7	8.3	8.0	8.1	8.3	8.2	8.2	8.4	8.2	8.3	8.3	8.2	8.3
8	8.3	8.1	8.2	8.3	8.1	8.2	8.4	8.2	8.3	8.3	8.2	8.2
9	8.1	8.0	8.1	8.3	8.1	8.2	8.4	8.2	8.3	8.4	8.2	8.3
10	8.1	7.8	8.0	8.3	8.1	8.2	8.4	8.1	8.2	8.4	8.3	8.3
11	8.2	8.0	8.1	8.3	8.1	8.2	8.3	8.1	8.2	8.4	8.2	8.3
12	8.3	8.1	8.2	8.3	8.1	8.2	8.3	8.1	8.2	8.4	8.2	8.3
13	8.3	7.9	8.1	8.3	8.1	8.2	8.4	8.1	8.2	8.4	8.2	8.3
14	8.0	7.8	7.9	8.3	8.1	8.2	8.4	8.1	8.2	8.4	8.1	8.2
15	8.2	7.9	8.1	8.3	8.2	8.2	8.3	8.1	8.2	8.4	8.1	8.2
16	8.3	8.0	8.2	8.3	8.1	8.2	8.3	8.1	8.2	8.5	8.2	8.3
17	8.3	8.0	8.2	8.3	8.1	8.2	8.3	8.2	8.2	8.4	8.2	8.3
18	8.4	8.2	8.3	8.3	8.1	8.2	8.4	8.2	8.3	8.4	8.2	8.3
19	8.4	8.2	8.2	8.2	8.0	8.2	8.4	8.2	8.3	8.4	8.2	8.2
20	8.4	8.2	8.3	8.3	8.0	8.1	8.3	8.2	8.2	8.3	8.1	8.2
21	8.4	7.5	8.2	8.4	8.1	8.3	8.3	8.2	8.2	8.3	8.1	8.2
22	8.1	7.8	8.0	8.5	8.2	8.3	8.4	8.2	8.3	8.2	8.1	8.1
23	8.2	8.1	8.2	8.4	8.2	8.3	8.4	8.2	8.3	8.3	8.2	8.2
24	8.3	8.2	8.2	8.4	8.2	8.3	8.4	8.1	8.3	8.3	8.2	8.2
25	8.3	8.1	8.2	8.4	8.1	8.3	8.4	8.1	8.2	8.3	8.2	8.2
26	8.4	8.2	8.3	8.4	7.6	8.1	8.3	8.1	8.2	8.2	8.1	8.2
27	8.4	8.2	8.3	8.3	7.9	8.1	8.3	8.1	8.2	8.2	8.1	8.1
28	8.4	8.2	8.3	8.2	7.4	8.0	8.3	8.1	8.2	8.3	8.1	8.2
29	8.4	8.2	8.3	8.1	7.7	8.0	8.3	8.1	8.2	8.3	8.2	8.2
30	8.4	8.1	8.2	8.2	8.1	8.1	8.3	7.4	8.1	8.2	8.1	8.2
31	---	---	---	8.3	8.1	8.2	8.1	7.6	7.9	---	---	---
MONTH	8.4	7.5	8.2	8.5	7.4	8.2	8.4	7.4	8.2	8.5	7.5	8.2

03073030 CASTILE RUN AT CLARKSVILLE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	16.5	11.5	14.0	7.5	3.0	5.0	7.0	2.5	5.0			
2	14.0	11.5	13.0	6.0	1.0	3.0	7.0	3.5	5.0			
3	14.5	11.5	12.5	7.5	.5	4.0	3.5	.0	1.5			
4	12.0	9.5	11.0	10.5	6.5	8.0	.5	.0	.5			
5	11.5	8.5	9.5	8.0	5.0	6.0	3.0	1.0	2.0			
6	10.5	6.0	8.0	7.0	2.5	4.5	5.5	3.0	4.5			
7	12.5	8.5	10.0	11.0	4.5	8.0	8.5	5.5	7.0			
8	13.0	7.0	10.0	10.5	6.5	9.5	11.0	8.0	9.0			
9	14.5	10.0	12.0	11.0	6.0	8.0	10.0	6.5	8.0			
10	14.0	8.5	11.0	7.5	4.5	6.0	6.5	4.0	5.5			
11	13.5	11.0	12.5	4.5	3.0	4.0	4.0	1.0	3.0			
12	11.0	9.0	9.5	5.5	2.5	3.5	5.0	2.5	3.5			
13	9.5	6.5	8.5	6.5	1.0	3.5	5.0	2.0	4.0			
14	8.5	4.5	6.5	7.5	2.5	5.0	2.0	.0	1.0			
15	12.0	6.5	9.0	6.5	5.0	6.0	2.0	.0	1.0			
16	14.0	8.5	10.5	5.5	1.5	4.0	2.5	1.0	2.0			
17	14.5	8.5	12.0	2.0	.0	1.0	1.0	.0	.5			
18	15.5	13.0	14.5	4.0	2.0	3.0	3.5	.0	2.0			
19	13.5	10.0	12.0	---	---	---	3.0	.0	1.5			
20	10.0	8.0	9.0	---	---	---	.5	.0	.5			
21	12.0	7.0	9.5	---	---	---	---	---	---			
22	12.0	7.5	9.5	---	---	---	---	---	---			
23	9.5	4.5	7.0	---	---	---	---	---	---			
24	10.5	5.0	7.5	---	---	---	---	---	---			
25	9.5	6.5	8.5	---	---	---	---	---	---			
26	6.0	4.5	5.0	3.5	.5	2.0	---	---	---			
27	7.5	3.5	5.5	4.5	2.0	3.0	---	---	---			
28	7.5	6.0	7.0	4.5	3.0	4.0	---	---	---			
29	8.0	4.0	5.5	3.0	2.5	2.5	---	---	---			
30	6.5	2.0	4.0	4.5	2.5	3.0	---	---	---			
31	7.0	1.0	3.5	---	---	---	---	---	---			
MONTH	16.5	1.0	9.5	11.0	.0	4.5	11.0	.0	3.5			

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	6.5	4.5	5.0	14.5	8.0	11.0	15.5	10.0	11.5
2	---	---	---	6.0	3.0	4.5	15.0	8.0	12.0	16.0	7.0	11.0
3	---	---	---	5.0	1.0	2.5	17.5	7.5	12.0	19.0	6.0	12.0
4	---	---	---	4.0	.0	2.0	18.0	12.0	14.5	22.0	8.5	14.5
5	---	---	---	4.5	3.5	4.0	16.0	9.5	13.5	22.5	11.5	16.5
6	---	---	---	5.5	2.0	3.5	12.0	6.0	8.5	17.0	9.5	13.5
7	---	---	---	4.0	.5	2.0	15.0	3.0	8.5	18.0	6.5	12.0
8	---	---	---	4.0	1.5	3.0	19.0	6.0	12.0	20.0	6.5	12.5
9	---	---	---	7.0	2.5	4.5	16.5	10.0	13.0	21.5	8.5	14.5
10	---	---	---	6.5	3.0	4.5	16.0	5.5	11.0	19.5	12.0	15.5
11	---	---	---	6.0	3.0	4.5	19.0	11.5	15.0	19.5	14.5	16.5
12	---	---	---	9.0	1.0	4.5	18.5	11.5	13.5	15.0	10.5	12.5
13	---	---	---	10.5	3.0	6.0	14.5	10.5	12.0	19.5	9.0	13.5
14	---	---	---	7.0	1.0	3.5	14.5	9.0	11.5	23.0	12.5	17.0
15	---	---	---	9.0	.0	4.0	14.5	7.0	10.0	17.5	14.0	16.0
16	---	---	---	6.5	1.5	3.5	15.5	5.5	10.0	16.0	12.0	13.5
17	---	---	---	5.0	.5	2.0	13.0	10.5	12.0	19.5	9.0	14.0
18	9.5	4.0	6.0	5.0	.0	2.0	19.0	11.5	14.5	14.5	11.0	12.5
19	7.0	3.5	5.0	4.5	.5	2.0	13.0	7.5	10.5	11.5	10.0	11.0
20	5.5	4.0	5.0	4.0	.0	2.0	15.0	8.0	11.0	20.0	7.5	13.0
21	5.5	4.0	5.0	6.0	1.5	3.0	14.5	5.0	9.0	20.5	8.5	14.0
22	10.5	5.0	7.5	7.0	.0	3.0	12.5	5.5	9.5	21.5	10.0	15.5
23	7.5	5.0	6.5	10.5	2.0	5.5	14.5	11.0	12.5	20.5	11.5	16.0
24	6.0	4.5	5.0	8.5	1.5	5.0	12.0	8.0	10.0	23.5	14.0	18.5
25	6.5	3.5	4.5	9.5	2.5	5.5	9.0	7.5	8.0	22.5	14.5	18.5
26	5.5	3.0	4.0	10.5	1.0	5.5	16.0	5.5	10.5	---	---	---
27	7.0	3.0	5.0	9.5	4.5	7.5	21.0	10.5	15.0	---	---	---
28	7.5	4.0	6.0	13.5	1.5	7.0	21.0	11.5	16.0	---	---	---
29	---	---	---	15.0	4.0	9.5	19.0	14.5	16.5	---	---	---
30	---	---	---	13.0	9.5	11.0	14.5	11.0	13.0	---	---	---
31	---	---	---	18.5	8.5	13.0	---	---	---	---	---	---
MONTH	10.5	3.0	5.5	18.5	.0	4.5	21.0	3.0	12.0	23.5	6.0	14.0

BEST DOCUMENT AVAILABLE

03073030 CASTILE RUN AT CLARKSVILLE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	20.5	17.5	19.0	22.0	15.5	18.5	21.5	18.0	19.5
2	---	---	---	21.5	17.5	19.0	22.5	17.0	19.5	21.0	19.0	20.0
3	---	---	---	22.0	17.0	19.5	22.5	18.5	20.0	20.0	18.5	19.5
4	20.5	18.0	19.0	23.0	18.0	20.0	23.0	19.0	20.5	20.5	18.5	19.5
5	20.5	17.0	18.5	20.5	18.5	19.5	24.5	19.5	21.5	21.0	17.5	19.0
6	20.0	17.0	18.5	23.0	18.0	20.0	22.0	19.5	20.5	20.5	17.0	18.5
7	21.5	14.5	17.5	24.5	18.5	21.0	21.5	19.5	20.5	20.5	16.0	18.0
8	21.5	14.0	18.0	25.5	18.5	21.5	23.0	18.5	20.5	19.5	17.0	18.0
9	22.5	18.0	19.5	26.5	20.5	23.0	23.0	18.0	20.5	18.5	14.5	16.0
10	18.0	15.5	16.0	26.5	20.5	23.0	23.5	17.5	20.5	17.5	12.0	14.5
11	18.5	13.0	16.0	25.0	16.5	20.5	22.5	18.5	20.5	20.0	14.5	17.0
12	20.0	14.5	17.5	25.0	17.5	21.0	23.0	18.0	20.5	21.0	16.0	18.5
13	20.0	17.0	18.5	21.5	19.0	20.0	22.5	17.5	20.0	21.0	16.5	18.5
14	19.5	16.5	18.0	24.5	19.0	21.5	22.5	18.0	20.0	20.5	16.5	18.5
15	21.5	15.5	18.5	23.0	16.0	19.0	21.0	19.0	20.0	19.0	17.0	18.5
16	22.0	16.5	19.0	21.0	17.5	19.0	21.5	18.0	20.0	18.5	15.5	17.0
17	20.0	16.5	18.0	23.0	17.0	19.5	20.5	14.5	17.0	17.0	13.5	15.5
18	21.5	14.0	16.5	24.5	17.0	20.5	20.0	12.5	16.0	14.5	11.0	13.0
19	22.0	16.0	19.0	22.5	17.5	20.0	19.5	13.0	16.0	15.0	12.0	13.0
20	20.5	17.5	19.0	24.0	20.5	22.0	20.0	13.5	16.5	16.5	13.0	14.5
21	21.0	17.0	18.5	23.5	20.5	22.0	19.5	13.5	16.5	17.0	13.0	14.5
22	20.5	16.5	18.0	22.5	18.5	20.0	21.0	15.0	17.5	15.0	12.5	14.5
23	20.0	14.5	17.0	22.0	15.0	18.5	20.5	13.5	16.5	13.0	10.0	11.5
24	20.5	15.0	17.5	22.5	17.0	19.5	20.5	14.5	17.5	13.0	8.0	10.5
25	21.5	17.0	19.0	23.5	17.5	20.5	19.5	14.5	17.0	14.0	8.5	11.5
26	19.0	15.5	17.0	22.5	20.0	21.0	20.5	14.0	17.0	17.0	12.0	14.5
27	19.5	12.5	16.0	23.0	20.0	21.0	21.5	15.0	18.0	17.5	14.0	15.5
28	21.0	13.0	16.5	23.0	19.5	20.5	22.5	17.0	19.5	15.0	11.0	13.0
29	21.5	14.5	17.5	19.5	16.5	18.5	23.0	17.5	20.0	12.5	8.0	10.5
30	23.5	17.0	19.5	20.5	14.5	17.0	21.5	18.5	19.5	14.5	11.5	13.0
31	---	---	---	21.5	15.5	18.0	19.5	17.5	18.5	---	---	---
MONTH	23.5	12.5	18.0	26.5	14.5	20.0	24.5	12.5	19.0	21.5	8.0	16.0

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.88	61	.14	1.2	10	.03	4.1	37	.41
2	.88	62	.15	1.1	9	.03	4.3	41	.48
3	.88	70	.17	.88	9	.02	4.3	41	.48
4	.68	70	.13	1.1	10	.03	4.3	50	.58
5	.60	70	.11	.88	12	.03	3.7	45	.45
6	.60	70	.11	.88	12	.03	3.5	39	.37
7	.60	70	.11	.98	13	.03	3.7	37	.37
8	.53	60	.09	1.7	33	.15	4.1	37	.41
9	.40	50	.05	1.3	56	.20	13	160	7.2
10	.53	50	.07	1.2	61	.20	13	36	1.3
11	.68	35	.06	.98	44	.12	8.5	26	.60
12	.68	28	.05	.98	17	.04	6.8	25	.46
13	.60	30	.05	1.1	19	.06	5.9	26	.41
14	.53	35	.05	1.1	30	.09	4.7	26	.33
15	.60	40	.06	.98	38	.10	4.0	24	.26
16	.46	45	.06	.98	30	.08	3.4	20	.18
17	.53	40	.06	4.1	72	.80	3.0	15	.12
18	1.4	60	.23	8.5	54	1.2	2.7	14	.10
19	.88	40	.10	3.3	30	.27	2.4	14	.09
20	.60	25	.04	2.6	20	.14	2.2	13	.08
21	.68	25	.05	1.9	20	.10	2.0	13	.07
22	.88	30	.07	1.7	18	.08	2.1	13	.07
23	1.1	35	.10	1.7	17	.08	2.4	12	.08
24	.88	37	.09	8.1	70	1.5	1.7	12	.06
25	8.7	187	5.8	7.1	66	1.3	1.4	10	.04
26	3.5	40	.38	4.1	39	.43	1.6	10	.04
27	2.0	15	.08	4.5	27	.33	1.8	10	.05
28	1.7	10	.05	5.0	26	.35	2.3	9	.06
29	1.5	10	.04	5.0	26	.35	2.5	9	.06
30	1.4	10	.04	4.5	29	.35	2.0	8	.04
31	1.2	10	.03	---	---	---	1.7	25	.11
TOTAL	37.08	---	8.62	79.44	---	8.52	123.1	---	15.36

03073030 CASTILE RUN AT CLARKSVILLE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	1.5	24	.10	10	7	.19	12	66	2.1
2	1.4	20	.08	19	8	.41	11	63	1.9
3	1.3	19	.07	10	7	.19	9.2	61	1.5
4	1.3	18	.06	7.0	6	.11	8.6	59	1.4
5	1.2	18	.06	5.6	6	.09	14	71	2.7
6	1.3	17	.06	4.5	5	.06	13	31	1.1
7	1.4	20	.08	4.3	5	.06	10	39	1.1
8	1.2	14	.05	4.4	7	.08	8.9	43	1.0
9	1.3	16	.06	4.5	8	.10	8.1	40	.87
10	1.4	18	.07	8.0	8	.17	7.6	40	.82
11	1.6	20	.09	13	55	1.9	7.3	39	.77
12	1.8	25	.12	7.4	50	1.0	6.4	39	.67
13	2.0	27	.15	12	48	1.6	6.1	38	.63
14	2.3	30	.19	7.0	47	.89	5.2	38	.53
15	1.9	30	.15	6.0	46	.75	5.2	39	.55
16	1.5	20	.08	8.5	43	.99	10	44	1.2
17	1.2	15	.05	14	41	1.5	8.6	35	.81
18	1.0	12	.03	15	40	1.6	7.7	61	1.3
19	.90	10	.02	14	40	1.5	6.8	69	1.3
20	1.0	9	.02	33	423	46	6.7	66	1.2
21	1.2	8	.03	29	160	13	6.1	61	1.0
22	1.4	7	.03	18	41	2.0	5.9	53	.84
23	1.7	6	.03	38	471	77	5.7	44	.68
24	1.5	6	.02	25	82	5.5	5.3	36	.52
25	2.5	5	.03	17	52	2.4	5.0	37	.50
26	12	5	.16	13	46	1.6	4.6	38	.47
27	7.0	5	.09	11	44	1.3	6.3	40	.68
28	4.0	6	.06	12	60	1.9	5.2	33	.46
29	3.2	6	.05	---	---	---	5.2	29	.41
30	4.2	5	.06	---	---	---	5.4	26	.38
31	5.6	5	.08	---	---	---	4.7	25	.32
TOTAL	72.80	---	2.23	370.2	---	163.89	231.8	---	29.71

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	4.8	40	.52	6.0	46	.75	5.0	100	1.4
2	4.2	50	.57	5.4	46	.67	4.0	75	.81
3	4.0	52	.56	4.8	47	.61	4.6	220	2.7
4	3.8	55	.56	4.4	48	.57	8.7	226	8.0
5	4.2	83	.94	4.2	45	.51	7.6	106	2.4
6	3.7	85	.85	4.4	75	.89	18	298	16
7	3.4	76	.70	4.0	71	.77	14	120	4.5
8	3.4	61	.56	3.2	72	.62	8.1	100	2.2
9	3.8	51	.52	3.0	70	.57	17	322	18
10	3.4	37	.34	3.0	68	.55	32	449	49
11	8.3	209	18	3.8	67	.69	20	115	6.2
12	118	1930	898	3.0	66	.53	13	55	1.9
13	99	301	123	2.7	64	.47	14	348	13
14	56	426	77	2.5	63	.43	33	860	77
15	34	57	5.2	4.6	87	1.1	18	60	2.9
16	24	43	2.8	3.0	48	.39	15	345	20
17	19	97	5.0	2.5	47	.32	14	121	5.2
18	17	83	3.8	2.4	55	.36	9.2	80	2.0
19	13	73	2.6	3.8	74	.76	7.4	80	1.6
20	10	69	1.9	3.0	77	.62	6.4	83	1.4
21	8.8	66	1.6	2.5	60	.41	20	1030	198
22	7.8	63	1.3	2.2	44	.26	29	267	24
23	9.2	80	2.0	2.1	35	.20	13	100	3.5
24	8.1	90	2.0	1.9	35	.18	8.1	72	1.6
25	8.1	91	2.0	1.9	30	.15	11	135	4.0
26	6.7	82	1.5	1.9	35	.18	6.7	72	1.3
27	6.4	72	1.2	2.4	35	.23	5.0	65	.88
28	7.4	62	1.2	5.0	140	1.9	4.4	58	.69
29	7.4	57	1.1	4.4	40	.48	3.8	50	.51
30	6.4	52	.90	5.8	275	4.3	4.2	78	.88
31	---	---	---	13	260	9.1	---	---	---
TOTAL	513.3	---	1158.22	116.8	---	29.57	374.2	---	471.57

03073030 CASTILE RUN AT CLARKSVILLE, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	8.3	293	12	3.8	28	.29	26	969	274
2	4.4	75	.89	3.2	10	.09	29	2240	241
3	3.6	78	.76	3.0	7	.06	26	488	37
4	2.8	80	.60	5.6	72	1.1	24	280	18
5	2.7	81	.59	3.4	32	.29	11	104	3.1
6	2.5	90	.61	3.0	27	.22	6.8	80	1.5
7	2.1	96	.54	3.2	23	.20	5.8	91	1.4
8	1.8	96	.47	2.5	17	.11	7.2	112	2.2
9	1.5	96	.39	2.2	12	.07	5.4	88	1.3
10	1.4	100	.38	1.9	7	.04	4.0	82	.89
11	1.1	110	.33	2.4	4	.03	3.3	80	.71
12	1.0	120	.32	1.9	1	.00	3.1	70	.59
13	2.2	190	1.1	1.8	1	.00	2.6	62	.44
14	1.4	60	.23	1.3	1	.00	2.6	50	.35
15	1.1	48	.14	1.4	1	.00	4.0	105	1.1
16	1.0	44	.12	1.6	1	.00	3.1	66	.55
17	.93	41	.10	1.3	1	.00	2.4	49	.32
18	.86	42	.10	1.2	1	.00	2.2	43	.26
19	.80	45	.10	1.1	1	.00	2.2	40	.24
20	1.4	48	.18	1.1	1	.00	1.9	38	.19
21	1.4	49	.19	1.2	1	.00	1.7	40	.18
22	1.1	50	.15	1.1	1	.00	1.7	42	.19
23	.93	52	.13	.93	1	.00	1.7	42	.19
24	1.1	50	.15	.93	1	.00	1.9	51	.26
25	.70	53	.10	.86	1	.00	1.7	46	.21
26	6.4	1910	92	.80	1	.00	1.5	46	.19
27	5.8	1480	24	.93	1	.00	1.4	35	.13
28	40	1860	515	.80	1	.00	1.4	10	.04
29	19	144	7.4	.70	1	.00	1.5	27	.11
30	6.4	60	1.0	6.8	2770	254	1.4	42	.16
31	4.4	47	.56	9.2	2000	50	---	---	---
TOTAL	130.12	---	660.63	71.15	---	306.50	188.5	---	586.80
YEAR	2308.49		3441.62						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, JUNE 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
JUN												
09...	1025	31	18.5	1110	93	54	71	88	96	98	99	100

BEST DOCUMENT AVAILABLE

03074500 REDSTONE CREEK AT WALTERSBURG, PA

LOCATION.--Lat 39°58'48", long 79°45'52", Fayette County, Hydrologic Unit 05020005, on right bank, 15 ft (4.6 m) upstream from highway bridge at Waltersburg, 400 ft (120 m) upstream from Bolden Run, and 0.9 mi (1.4 km) upstream from Allen Run.

DRAINAGE AREA.--73.7 mi^2 (190.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1942 to current year. Monthly discharge only for October 1942, published in WSP 1305.

REVISED RECORDS.--WSP 1435: 1943-45 (M), 1946, 1947 (M), 1948 (P), 1949-50 (M), 1951 (P), 1952 (M).

GAGE.--Water-stage recorder. Datum of gage is 883.28 ft (269.224 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 15, 1973, nonrecording gage 15 ft (4.6 m) downstream at same datum.

REMARKS.--Records fair. Some regulation at low flow by mine pumpage into stream above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years, 100 ft^3/s (2.832 m^3/s), 18.43 in/yr (468 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,660 ft^3/s (245 m^3/s) June 23, 1972, gage height, 14.83 ft (4.520 m); minimum observed, 4.2 ft^3/s (0.12 m^3/s) Aug. 2, 1962; minimum gage height, 0.34 ft (0.104 m) Aug. 26, 29, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 21	0245	1860	52.7	5.71	1.740	June 14	1300	2220	62.9	6.31	1.923
Apr. 13	0145	*2920	82.7	*7.48	2.280						

Minimum daily discharge, 17 ft^3/s (0.48 m^3/s) Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	31	80	56	123	400	115	96	85	60	38	58
2	35	29	88	54	530	260	100	105	73	56	35	91
3	35	29	93	50	221	210	92	86	80	52	34	80
4	35	30	78	44	157	190	85	74	184	50	42	102
5	33	26	77	42	112	180	86	71	145	49	34	58
6	29	19	77	43	94	160	78	72	151	48	33	44
7	27	17	78	47	84	150	64	67	112	47	34	42
8	25	37	81	44	76	150	55	62	95	45	32	46
9	24	45	167	41	72	140	71	58	175	44	27	43
10	24	60	173	41	127	135	62	55	280	46	27	36
11	25	44	139	39	325	130	75	150	207	45	26	37
12	24	29	122	38	188	153	989	90	151	44	27	26
13	24	28	110	38	152	133	1380	66	137	53	26	26
14	23	28	96	38	135	119	678	59	922	49	25	26
15	23	28	87	38	121	110	404	173	359	44	25	51
16	24	30	88	37	110	270	285	137	230	41	28	79
17	23	64	78	36	120	220	232	109	207	36	25	42
18	30	173	71	36	130	170	220	96	141	29	23	34
19	25	80	67	37	150	150	171	110	113	28	23	31
20	24	61	54	39	522	140	159	95	104	32	23	29
21	23	55	48	42	1280	125	135	84	109	43	23	28
22	22	47	49	47	510	110	120	79	191	43	22	28
23	22	43	51	49	549	140	147	71	126	31	22	27
24	22	210	56	47	413	170	190	64	96	29	22	26
25	130	202	47	48	293	120	240	59	133	28	22	25
26	74	137	43	98	225	110	170	61	102	40	22	24
27	42	117	44	129	215	150	150	62	88	56	23	23
28	41	108	47	102	263	170	125	78	72	95	23	23
29	36	102	56	90	---	200	110	69	65	131	22	23
30	32	88	59	69	---	147	100	110	62	51	38	23
31	31	---	53	59	---	126	---	165	---	43	40	---
TOTAL	1019	1997	2457	1618	7297	5138	6888	2733	4995	1485	866	1231
MEAN	32.9	66.6	79.3	52.2	261	166	230	88.2	167	47.9	27.9	41.0
MAX	130	210	173	129	1280	400	1380	173	922	131	42	102
MIN	22	17	43	36	72	110	55	55	62	28	22	23
CFSM	.45	.90	1.08	.71	3.54	2.25	3.12	1.20	2.27	.65	.38	.56
IN.	.51	1.01	1.24	.82	3.68	2.59	3.48	1.38	2.52	.75	.44	.62

CAL YR 1980 TOTAL 41743 MEAN 114 MAX 1280 MIN 17 CFSM 1.55 IN 21.07
WTR YR 1981 TOTAL 37724 MEAN 103 MAX 1380 MIN 17 CFSM 1.40 IN 19.04

03074500 REDSTONE CREEK AT WALTERSBURG, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1968 to September 1972, November 1975 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
DEC										
02...	1545	86	875	7.1	15.0	--	--	104	330	--
FEB										
02...	1400	533	380	7.0	4.0	--	--	56	86	238
MAR										
11...	1230	136	790	7.0	6.0	--	--	102	270	534
23...	1700	99	860	7.0	9.5	--	--	96	280	601
MAY										
28...	1230	74	1020	7.2	18.0	--	--	64	400	764
AUG										
11...	0705	21	1670	6.7	18.0	1.2	60	110	870	1440

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
DEC										
02...	--	--	12000	4300	7700	910	0	1000	48	11
FEB										
02...	.32	343	20000	20000	480	770	300	470	545	784
MAR										
11...	.73	196	11000	1700	9300	850	0	880	33	12
23...	.82	161	13000	2000	11000	930	0	930	45	12
MAY										
28...	1.0	153	15000	6600	8400	1400	0	1400	68	14
AUG										
11...	1.9	81.6	19000	9300	9700	2500	0	2600	--	--

03075070 MONONGAHELA RIVER AT ELIZABETH, PA

LOCATION.--Lat 40°15'44", long 79°54'05", Allegheny County, Hydrologic Unit 05020005, on right bank 30 ft (9 m) landward from upstream end of guide wall, 1,050 ft (320 m) upstream from dam at lock 3 at Elizabeth, 0.4 mi (0.12 km) downstream from Lobbs Creek, and at mile 24.0 (38.6 km).

DRAINAGE AREA.--5,340 mi^2 (13,831 km^2).

PERIOD OF RECORD.--October 1933 to current year. Published as "at Charleroi" (station 03075000) October 1933 to September 1976. Monthly discharge prior to 1940, adjusted for reservoir contents, published in WSP 1305. Records for March 1886 to March 1905 (high-water periods, only), published in WSP 169, are unreliable and should not be used (peak discharge of July 11, 1888, as published in WSP 783, is still considered reliable).

REVISED RECORDS.--WSP 758: Drainage area. WSP 783: 1888 (M). WSP 1435: 1934, 1936. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 725.50 ft (221.132 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). From Oct. 1, 1967, to Sept. 30, 1976, at site 17.5 mi (28.2 km) upstream at datum 8.10 ft (2.469 m) higher. Prior to Oct. 1, 1967, water-stage recorder at site 17.9 mi (28.8 km) upstream at datum 9.83 ft (3.000 m) higher. Oct. 1, 1965, to Sept. 30, 1967, auxiliary staff gage and Apr. 14, 1966, to Sept. 30, 1967, auxiliary water-stage recorder at present site.

REMARKS.--Records good except those below 1,000 ft^3/s (30 m^3/s) which are fair. Flow regulated by locks above station, since 1938 by Tygart Lake and since 1926 by Lake Lynn, combined capacity, 357,000 acre-ft, (441 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 9,134 ft^3/s (258.7 m^3/s), 23.23 in/yr (590 mm/yr), adjusted for storage 1940-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 158,000 ft^3/s (4,470 m^3/s) Mar. 7, 1967, gage height, 41.63 ft (12.689 m), from floodmark in gage well, site and datum then in use; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 94,400 ft^3/s (2,670 m^3/s) June 7, gage height, 13.49 ft (4.112 m); minimum daily, 720 ft^3/s (20.39 m^3/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	2650	10900	4000	5600	22200	17300	8420	27800	4550	2620	2320
2	1680	1800	12700	4700	17700	27500	13200	20800	21400	5480	2150	4380
3	1480	1850	17200	4200	29300	21400	14800	20400	21000	4620	2350	5960
4	1900	2290	14900	4600	13500	17000	10300	15000	19500	4960	2440	8540
5	1680	1850	13500	5200	13500	17700	8000	14800	30500	4420	2530	14700
6	1580	1630	9800	3900	11600	22200	7900	14700	59100	4380	1820	7150
7	1630	2050	8000	4600	9200	19800	6700	8600	84900	4380	2470	3820
8	1830	2200	9200	4000	9200	13500	7050	6400	50300	4760	2560	3650
9	2050	1580	13500	2300	5600	13500	5320	4960	36800	3790	2150	3510
10	1680	1350	20600	2700	8600	12200	6550	4520	37000	3540	2500	6000
11	1430	2320	23000	2000	9200	11600	6300	4880	46300	2890	2150	3860
12	1350	2530	17700	3300	16300	9200	32500	6400	35200	1880	2290	3680
13	1350	2410	12800	3800	14900	7000	58500	7400	27200	1950	2100	2000
14	1580	1730	8000	3000	13500	7000	33500	8180	34700	2440	1280	3160
15	1480	1000	7400	3500	11600	7500	27600	13700	40400	2800	1300	3960
16	1280	1500	6400	2900	9800	9800	19400	23000	28700	2800	780	7650
17	1850	1700	5800	2300	12200	9200	14100	17600	18700	2080	1350	8060
18	1530	13100	5200	2100	19100	8000	18500	15300	9800	1680	2230	8660
19	1350	19500	3900	3600	19800	8120	18400	17200	6800	720	1700	5280
20	1160	12400	3700	3000	22200	6550	16200	38300	6200	980	1280	4960
21	1600	11400	2600	3400	50000	5880	15000	34800	9900	2890	2200	5040
22	1350	7700	3800	2800	46000	5200	12700	25000	16900	2950	1330	4340
23	1630	5520	3200	4600	31100	4730	12100	19600	16000	3070	780	4630
24	1160	8000	5200	4400	46000	5240	14200	10700	12700	1830	1160	2620
25	2100	24300	3200	6000	36500	6150	13600	6150	9920	2350	880	2100
26	4730	22100	3500	13000	28400	5760	12900	6450	11800	1680	1400	1320
27	4840	18400	2600	26000	20600	9260	11800	5480	9500	4030	780	1100
28	3610	16900	2700	16000	19100	18800	14800	5520	7050	3960	1020	1950
29	3540	15700	3600	11000	---	21600	12400	12000	5480	12300	1350	1000
30	3220	12300	4600	8400	---	17500	10500	12400	3790	8300	880	1500
31	3370	---	5600	6800	---	16800	---	16600	---	4450	2410	---
TOTAL	62820	219760	264800	172100	550100	387890	472120	425260	745340	112910	54240	136900
MEAN	2026	7325	8542	5552	19650	12510	15740	13720	24840	3642	1750	4563
MAX	4840	24300	23000	26000	50000	27500	58500	38300	84900	12300	2620	14700
MIN	1160	1000	2600	2000	5600	4730	5320	4520	3790	720	780	1000

CAL YR 1980 TOTAL 3746796 MEAN 10240 MAX 83600 MIN 546
WTR YR 1981 TOTAL 3604240 MEAN 9875 MAX 84900 MIN 720

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39'13", long 79°24'31", Garrett County, Hydrologic Unit 05020006, on left bank 0.7 mi (1.1 km) upstream from bridge on Stage Highway 42 at Friendsville, and 1.5 mi (2.4 km) upstream from Bear Creek.

DRAINAGE AREA.--295 mi^2 (764 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1898 to December 1904 and October 1940 to current year. October, November 1940 monthly discharge only, published in WSP 1305. September 1922 to September 1926 (gage heights only) in reports of Pennsylvania Department of Forest and Waters.

REVISED RECORDS.--WSP 1385: Drainage area at former site, 1898-1905, 1941 (M), 1942, 1944-45, 1948-49, 1951 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,487.33 ft (453.338 m) National Geodetic Vertical Datum of 1929. Aug. 17, 1898, to Dec. 31, 1904, and Sept. 1, 1922, to Sept. 30, 1926, nonrecording gages at bridge 0.7 mi (1.1 km) downstream at datum 16.24 ft (4.950 m) and 16.29 ft (4.965 m) lower, respectively.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Low and medium flow regulated since July 1925 by Deep Creek Reservoir (station 03076000). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years (water years 1899-1904, 1941-81), 644 ft^3/s (18.24 m^3/s), 29.65 in/yr (753 mm/yr), adjusted for storage since October 1940.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft^3/s (368 m^3/s) Oct. 16, 1954, gage height, 8.99 ft (2.740 m), from rating curve extended above 5,800 ft^3/s (164 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 8.2 ft^3/s (0.23 m^3/s) Sept. 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1898, 14.2 ft (4.33 m) Mar. 29, 1924, from floodmarks, site and datum then in use or 10.2 ft (3.11 m), present site and datum; discharge, about 15,600 ft^3/s (440 m^3/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,270 ft^3/s (149 m^3/s) Apr. 13, gage height, 5.82 ft (1.774 m); minimum discharge, 54 ft^3/s (1.53 m^3/s) Oct. 8, 9,gage height, 2.01 ft (0.613 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274	204	465	165	240	2070	771	1100	996	944	383	324
2	227	176	703	150	900	1420	806	1470	827	719	304	324
3	277	152	1290	135	800	1130	650	939	745	430	655	446
4	284	138	870	115	600	882	602	869	1150	341	582	969
5	287	130	687	100	450	851	501	773	1650	298	508	1080
6	151	140	585	90	320	796	567	736	2300	444	483	546
7	61	120	535	100	246	574	468	650	3310	490	621	363
8	56	110	539	110	241	458	431	599	1870	397	353	480
9	55	110	659	130	754	546	404	379	1720	383	290	812
10	68	110	1390	120	480	526	419	302	2240	368	391	565
11	71	120	1020	110	677	516	622	458	1930	172	358	480
12	87	95	799	100	1200	506	1700	569	1360	145	343	242
13	85	101	628	90	703	559	4200	502	837	273	317	202
14	72	103	521	80	484	731	2950	462	1550	343	296	414
15	68	105	441	90	398	576	2290	728	2430	313	146	613
16	63	113	437	110	478	858	1490	667	1370	264	268	952
17	60	149	413	95	753	881	1070	504	1130	255	414	826
18	64	472	346	85	1560	735	1090	651	838	109	293	640
19	73	517	340	80	1950	701	863	1430	741	97	282	325
20	76	360	190	85	2160	628	1060	2030	544	264	263	283
21	77	328	170	90	3050	451	936	1300	744	428	250	496
22	69	282	160	95	2130	365	841	982	1410	433	104	464
23	62	267	150	100	1920	464	795	614	1100	318	106	430
24	59	1180	145	90	1860	608	1060	496	885	293	223	415
25	171	2690	140	85	1340	629	1120	414	769	352	231	392
26	662	1390	135	100	1050	640	932	510	1510	219	215	152
27	299	908	130	140	849	1750	1250	557	657	831	218	135
28	248	730	125	600	820	1870	1120	558	485	771	276	307
29	442	594	150	400	---	1170	972	621	566	1510	92	349
30	325	495	200	270	---	1050	922	470	726	933	77	118
31	248	---	175	220	---	935	---	823	---	715	221	---
TOTAL	5121	12389	14538	4330	28413	25876	32902	23163	38390	13852	9563	14144
MEAN	165	413	469	140	1015	835	1097	747	1280	447	308	471
MAX	662	2690	1390	600	3050	2070	4200	2030	3310	1510	655	1080
MIN	55	95	125	80	240	365	404	302	485	97	77	118
(†)	-37.4	+60.5	+94.3	-22.8	+184	+22.8	+117	-17.9	+25.2	-71.6	-89.2	-95.8
MEAN‡	128	474	563	117	1199	858	1214	729	1305	375	219	375
CFSM‡	.43	1.61	1.91	.40	4.06	2.91	4.12	2.47	4.42	1.27	.74	1.27
IN.‡	.50	1.80	2.20	.46	4.23	3.36	4.60	2.85	4.93	1.46	.85	1.42

CAL YR 1980 TOTAL 240061 MEAN 656 MAX 5280 MIN 55 MEAN‡ 653 CFSM‡ 2.21 IN.‡ 30.13
WTR YR 1981 TOTAL 222681 MEAN 610 MAX 4200 MIN 55 MEAN‡ 623 CFSM‡ 2.11 IN.‡ 28.65

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir furnished by Pennsylvania Electric Co.

‡ Adjusted for change in contents.

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
24...	1045	59	115	6.6	8.0	7.4	10.7	44	27	.0	.0	13
NOV												
20...	1000	361	84	6.5	-1.5	.3	13.6	28	16	.1	5.0	8.6
DEC												
17...	1230	354	55	6.0	-3.0	.5	13.3	22	7.0	.0	.0	6.5
MAR												
12...	1700	570	81	6.0	8.0	4.6	10.8	--	--	.0	.0	--
APR												
08...	1000	329	58	6.2	18.0	7.9	--	25	21	.0	.0	7.3
JUN												
19...	1000	440	51	6.3	19.5	18.3	--	--	--	.1	2.2	--
JUL												
24...	1000	124	73	7.2	19.0	18.4	8.7	--	--	.0	.0	--
AUG												
27...	1600	688	90	6.8	29.0	21.2	8.0	29	21	.0	.0	8.5

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT												
24...	2.7	3.4	14	.2	1.8	--	21	31	5.8	.0	1.6	84
NOV												
20...	1.7	3.4	19	.3	1.9	--	--	16	7.3	.1	3.9	58
DEC												
17...	1.5	1.8	14	.2	.9	--	4	16	3.1	.1	4.4	43
MAR												
12...	--	--	--	--	--	--	8	20	--	--	--	58
APR												
08...	1.7	1.8	13	.2	.9	.70	6	18	4.4	<.1	3.7	46
JUN												
19...	--	--	--	--	--	--	7	15	--	--	--	51
JUL												
24...	--	--	--	--	--	--	8	18	--	--	--	57
AUG												
27...	2.0	2.3	14	.2	1.2	.90	8	21	4.1	<.1	1.9	49

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT												
24...	70	.11	13.4	.10	130	90	40	30	10	20	2	.32
NOV												
20...	50	.08	56.5	--	550	450	100	50	10	40	7	6.8
DEC												
17...	43	.06	41.1	--	270	260	10	80	10	70	--	--
MAR												
12...	--	.08	89.3	--	--	--	--	--	--	--	--	--
APR												
08...	40	.06	40.9	--	290	260	30	100	30	70	--	--
JUN												
19...	--	.07	60.6	--	530	420	110	80	50	30	--	--
JUL												
24...	--	.08	19.1	--	260	250	10	40	30	10	--	--
AUG												
27...	46	.07	91.0	--	920	850	70	340	320	20	--	--

BEST DOCUMENT AVAILABLE

03077500 YOUGHIOGHENY RIVER AT YOUGHIOGHENY RIVER DAM, PA

LOCATION.--Lat 39°48'19", long 79°21'52", Somerset County, Hydrologic Unit 05020006, on right bank 800 ft (240 m) upstream from bridge on State Highway 281, 0.2 mi (0.3 km) downstream from Youghiogheny River Dam, 0.2 mi (0.3 km) south of Confluence, 0.7 mi (1.1 km) upstream from Casselman River, and at mile 73.2 (117.8 km).

DRAINAGE AREA.--436 mi^2 (1,129 km^2).

PERIOD OF RECORD.--September 1904 to September 1913 (gage heights only), October 1939 to current year. Monthly discharge only for October 1939 to April 1940, published in WSP 1305. Figures of daily discharge prior to January 1911, published in WSP 169, 205, 243, 263, and 283 are unreliable and should not be used. September 1904 to September 1922 (gage heights only) in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters. Published as "at Confluence" 1904-22.

REVISED RECORDS.--WSP 893: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,310.17 ft (399.340 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good. Flow regulated since 1925 by Deep Creek Reservoir and since 1943 by Youghiogheny River Lake 0.2 mi (0.3 km) upstream. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

COOPERATION.--Five discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--42 years (1939-81), 876 ft^3/s (24.81 m^3/s), 27.29 in/yr (693 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,700 ft^3/s (388 m^3/s) Mar. 5, 1948, gage height, 11.28 ft (3.438 m); maximum gage height, 19.08 ft (5.816 m) Oct. 15, 1954 (backwater from Casselman River); practically no flow at times during May and June 1950 when reservoir gates were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,400 ft^3/s (125 m^3/s) June 11, maximum gage height, 9.51 ft (2.899 m) Apr. 13, (backwater from Casselman River); minimum daily discharge, 145 ft^3/s (4.11 m^3/s) Nov. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	1030	165	182	196	577	1130	1460	621	734	680	1010
2	1240	1020	290	189	203	577	1140	609	621	738	680	1020
3	1390	1010	456	189	210	577	1140	609	807	738	681	802
4	1370	993	555	189	210	577	1140	1700	1020	738	680	448
5	1360	980	706	182	210	599	854	2360	1120	738	678	211
6	1330	980	706	182	203	599	649	1710	1120	735	680	211
7	1330	952	706	182	203	814	654	906	1780	734	680	342
8	1320	940	766	182	203	1080	552	750	2980	738	680	794
9	1310	952	814	182	203	1080	444	757	2990	738	677	1000
10	1290	915	1070	182	203	1080	444	760	3040	736	688	1000
11	1280	941	1340	182	210	1080	446	619	3910	735	799	1160
12	1280	928	1340	182	210	1080	778	604	4320	736	741	1320
13	1270	915	1340	182	203	1080	1110	597	2810	724	740	1320
14	1250	670	1340	182	196	1090	1110	597	1200	696	793	1320
15	1240	380	1080	182	196	1080	2670	609	1760	717	901	1340
16	1220	282	850	182	203	1100	3730	604	2850	890	901	1340
17	1210	282	646	182	218	1090	3560	578	3330	1190	892	1330
18	1210	391	522	182	218	1090	3560	617	2810	1170	878	1320
19	964	386	511	182	226	1090	3490	936	1510	940	888	1320
20	550	382	511	182	226	1090	3440	1930	990	682	888	1310
21	454	400	445	182	226	1090	3400	2960	991	577	887	1320
22	389	145	370	182	242	1090	3350	2340	1010	526	875	1540
23	348	145	300	182	242	1090	2550	952	1020	527	875	1750
24	658	150	210	189	258	1090	707	952	1010	602	875	1760
25	849	155	203	189	258	1100	233	944	1010	668	884	1730
26	837	160	196	196	467	1100	565	942	1030	668	875	1720
27	928	160	196	203	577	1110	1090	948	1040	659	875	1680
28	1030	160	196	203	577	1130	1890	940	1040	665	947	1480
29	1030	165	189	203	---	1130	2370	940	1040	599	1020	1250
30	1030	165	182	196	---	1130	2370	935	885	472	1020	1250
31	1030	---	182	196	---	1130	---	763	---	566	1010	---
TOTAL	33097	17134	18383	5782	6997	30620	50566	32928	51665	22376	25368	35398
MEAN	1068	571	593	187	250	988	1686	1062	1722	722	818	1180
MAX	1390	1030	1340	203	577	1130	3730	2960	4320	1190	1020	1760
MIN	348	145	165	182	196	577	233	578	621	472	677	211
†	-978	-13.4	+191	+119	+1610	+274	+230	-35.3	+79.3	-226	-554	-617
MEAN‡	90.0	558	784	306	1860	1262	1916	1027	1801	496	264	563
CFSM‡	.21	1.28	1.80	.70	4.27	2.89	4.39	2.36	4.13	1.14	.61	1.29
IN.‡	.24	1.43	2.08	.81	4.45	3.33	4.90	2.72	4.61	1.31	.70	1.44

CAL YR 1980 TOTAL 336424 MEAN 919 MAX 3570 MIN 119 ADJ -19.7 MEAN‡ 899 CFSM‡ 2.06 IN.‡ 28.10
WTR YR 1981 TOTAL 330314 MEAN 905 MAX 4320 MIN 145 ADJ -5.1 MEAN‡ 900 CFSM‡ 2.06 IN.‡ 28.02

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records for Deep Creek Reservoir furnished by Pennsylvania Electric Co.

‡ Adjusted for change in contents.

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD

LOCATION.--Lat 39°42'08", long 79°08'12", Garrett County, Hydrologic Unit 05020006, on left bank at downstream side of highway bridge, 0.3 mi (0.5 km) upstream from Slaubaugh Run, 0.7 mi (1.1 km) downstream from U.S. Highway 40, and 1.0 mi (1.6 km) northeast of Grantsville.

DRAINAGE AREA.--62.5 mi^2 (161.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1947 to current year.

REVISED RECORDS.--WSP 1143: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,088.97 ft (636.718 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--34 years, 119 ft^3/s (3.370 m^3/s), 25.86 in/yr (657 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft^3/s (238 m^3/s) Oct. 15, 1954, gage height, 10.70 ft (3.261 m), from rating curve extended above 1,600 ft^3/s (73.6 m^3/s) on basis of contracted-opening measurement at gage height 8.13 ft (2.478 m); no flow Aug. 31, 1962, result of regulation from unknown source.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 12	0200	Unknown		*a5.79	1.765	June 6	1700	1270	36.0	4.04	1.231
Apr. 13	0300	*2200	62.3	5.17	1.576						

a Ice jam.

Minimum discharge, 4.8 ft^3/s (0.14 m^3/s) Aug. 30, gage height, 1.03 ft (0.314 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMRER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	41	116	40	57	409	180	157	85	60	19	20
2	12	36	210	38	84	246	160	177	91	89	14	89
3	13	31	273	36	120	196	140	125	97	65	246	118
4	12	23	157	34	92	162	120	105	137	50	97	235
5	12	19	127	32	84	157	110	95	118	45	49	200
6	11	19	125	33	74	137	94	91	615	44	59	76
7	9.9	18	127	35	70	118	85	89	414	36	71	50
8	9.9	31	116	36	68	105	80	76	196	31	45	78
9	9.3	38	246	35	74	97	75	67	196	27	33	87
10	9.3	53	302	33	70	95	73	64	414	25	26	53
11	9.9	38	177	34	120	95	142	84	273	22	22	40
12	10	28	144	32	180	93	719	91	171	19	20	35
13	9.9	26	132	31	310	130	1340	71	134	19	19	31
14	10	25	110	29	180	220	925	60	430	21	17	27
15	9.9	24	99	32	110	190	598	137	286	18	17	123
16	11	27	91	35	84	170	346	114	165	15	27	370
17	9.3	31	82	33	160	150	269	89	130	15	19	171
18	9.3	56	80	32	300	140	365	80	105	14	14	97
19	14	42	68	30	520	130	250	220	87	12	13	75
20	12	48	49	29	650	110	231	228	85	14	12	64
21	11	60	52	31	880	100	177	142	89	29	10	56
22	9.3	38	54	34	670	96	147	114	142	25	9.3	49
23	8.2	38	56	32	560	94	147	97	95	18	8.2	45
24	8.7	409	52	31	451	100	250	85	67	20	7.7	40
25	157	424	49	29	294	110	306	75	112	28	7.2	36
26	160	193	46	37	228	150	214	68	217	21	7.2	33
27	53	137	45	47	184	270	187	71	91	28	6.6	29
28	45	114	48	60	302	380	157	84	67	52	6.2	27
29	53	97	47	54	---	300	137	93	55	101	5.7	25
30	36	85	46	47	---	250	125	85	48	44	6.2	24
31	32	---	43	43	---	210	---	130	---	25	15	---
TOTAL	788.9	2249	3369	1114	6976	5210	8149	3264	5212	1032	928.3	2403
MEAN	25.4	75.0	109	35.9	249	168	272	105	174	33.3	29.9	80.1
MAX	160	424	302	60	880	409	1340	228	615	101	246	370
MIN	8.2	18	43	29	57	93	73	60	48	12	5.7	20
CFSM	.41	1.20	1.74	.57	3.98	2.69	4.35	1.68	2.78	.53	.48	1.28
IN.	.47	1.34	2.01	.66	4.15	3.10	4.85	1.94	3.10	.61	.55	1.43

CAL YR 1980 TOTAL 43999.9 MEAN 120 MAX 1440 MIN 8.2 CFSM 1.92 IN 26.19
WTR YR 1981 TOTAL 40695.2 MEAN 111 MAX 1340 MIN 5.7 CFSM 1.78 IN 24.22

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 24...	0845	5.2	180	7.0	4.5	5.0	11.5	76	45	.0	.0	21
NOV 20...	1200	32	155	6.5	2.0	.3	13.6	53	53	.1	5.0	15
DEC 18...	0945	86	112	6.1	.0	.0	14.1	37	23	.0	.0	10
MAR 12...	1400	84	224	6.2	12.0	4.6	11.6	--	--	.0	.0	--
APR 08...	1200	84	102	6.7	18.0	10.0	--	44	22	.0	.0	13
JUN 18...	0815	106	98	5.9	13.0	14.9	9.1	--	--	.0	.0	--
JUL 24...	1540	23	190	8.6	20.0	19.2	9.6	--	--	.0	.0	--
AUG 27...	0830	6.7	203	7.4	21.0	16.9	9.7	78	50	.0	.0	23

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	POTAS-SIUM 40 DIS-SOLVED (PCI/L AS K40)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, SILICA, DIS-SOLVED (MG/L AS SIO2)	RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 24...	5.7	4.3	11	.2	1.8	--	34	41	10	.0	3.5	126
NOV 20...	3.8	11	30	.7	1.4	--	--	29	26	.1	4.3	108
DEC 18...	2.8	4.2	20	.3	.8	--	8	24	9.0	.1	4.4	69
MAR 12...	--	--	--	--	--	--	11	28	--	--	--	134
APR 08...	2.8	4.6	18	.3	.9	.70	10	23	9.8	<.1	4.0	64
JUN 18...	--	--	--	--	--	--	13	22	--	--	--	74
JUL 24...	--	--	--	--	--	--	31	38	--	--	--	126
AUG 27...	4.9	6.0	14	.3	1.3	--	26	36	12	<.1	.8	149

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 24...	106	.17	1.7	.04	300	170	130	40	10	30	1	.01
NOV 20...	100	.15	9.3	--	440	310	130	90	0	100	7	.60
DEC 18...	64	.09	16.0	--	220	190	30	140	0	140	--	--
MAR 12...	--	.18	30.4	--	260	210	50	190	10	180	--	--
APR 08...	72	.09	14.5	--	340	280	60	130	10	120	--	--
JUN 18...	--	.10	21.2	--	560	370	190	100	30	70	--	--
JUL 24...	--	.17	7.8	--	430	280	150	50	20	30	--	--
AUG 27...	101	.20	2.7	--	360	310	50	30	10	20	--	--

03079000 CASSELMAN RIVER AT MARKLETON, PA

LOCATION.--Lat 39°51'35", long 79°13'40", Somerset County, Hydrologic Unit 05020006, on right bank at downstream side of highway bridge at Markleton, 2 mi (3 km) southwest of Casselman, and 7 mi (11 km) downstream from Coxes Creek.

DRAINAGE AREA.--382 mi^2 (989 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to September 1913 (gage heights and discharge measurement only), October 1920 to current year. Monthly discharge only for some periods, published in WSP 1305. October 1913 to September 1920 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1923-31. WSP 1435: 1932-34, 1935 (M), 1936-38. WSP 1625: 1924 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,655.29 ft (504.532 m) National Geodetic Vertical Datum, adjustment of 1907. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are fair. Slight diversion above station to city of Frostburg, Md., in the Potomac River basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--61 years (1920-81), 660 ft^3/s (18.69 m^3/s), 23.46 in/yr (596 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft^3/s (1,420 m^3/s), estimated, Oct. 15, 1954, gage height, 14.06 ft (4.285 m), on basis of summation of peak flows at nearby stations; minimum, 10 ft^3/s (0.28 m^3/s) Sept. 9, 1957; minimum gage height, 0.85 ft (0.259 m) Sept. 30, Oct. 1, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,500 ft^3/s (382 m^3/s), Apr. 13, gage height, 8.65 ft (2.637 m), no other peak above base of 8,000 ft^3/s (227 m^3/s); minimum, 31 ft^3/s (0.88 m^3/s) Aug. 30, gage height, 0.96 ft (0.293 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	144	578	170	250	2280	864	744	577	222	127	912
2	62	144	814	160	400	1440	896	856	522	280	104	378
3	66	131	1180	150	1190	1170	720	664	528	275	160	1090
4	78	125	830	140	786	960	633	570	1060	218	534	1270
5	76	119	702	140	603	944	584	522	1200	245	222	1490
6	66	105	639	145	470	832	540	498	1280	214	157	728
7	62	98	605	150	400	712	486	486	1830	177	226	462
8	59	134	653	145	360	626	432	414	996	151	187	468
9	57	261	753	150	330	570	414	360	944	133	139	672
10	55	383	1520	135	310	564	414	330	1480	119	114	408
11	57	237	991	130	1900	570	414	480	1380	106	99	285
12	57	176	806	130	1690	564	4370	904	912	99	89	226
13	53	147	746	130	944	864	9630	591	736	96	85	190
14	53	137	639	130	660	1350	5990	492	2590	450	78	167
15	53	128	508	135	600	936	4090	1010	1870	194	83	275
16	52	131	410	130	620	1570	2280	928	1060	117	133	1260
17	50	140	350	125	660	1280	1700	680	824	106	109	969
18	53	556	290	125	1200	952	1720	564	640	94	87	558
19	61	401	240	120	2370	872	1420	648	528	85	72	420
20	59	275	200	125	3350	736	1180	912	504	99	63	336
21	59	290	190	130	5130	672	978	664	492	183	57	280
22	55	280	190	130	2900	577	832	546	619	180	53	235
23	52	261	200	130	2780	656	824	480	570	119	47	210
24	50	1420	170	130	2780	808	1280	426	402	96	44	180
25	731	2210	150	130	1830	800	1600	372	444	106	42	160
26	1180	1180	160	230	1400	800	1220	330	776	122	42	142
27	413	854	160	450	1130	1370	1080	444	462	265	38	133
28	275	724	160	780	1400	1490	936	402	325	210	36	119
29	256	639	170	500	---	1190	840	656	265	584	36	114
30	207	556	190	330	---	1120	848	605	230	320	42	111
31	165	---	180	230	---	1010	---	784	---	180	245	---
TOTAL	4634	12386	15374	5935	38443	30285	49215	18362	26046	5845	3550	14248
MEAN	149	413	496	191	1373	977	1641	592	868	189	115	475
MAX	1180	2210	1520	780	5130	2280	9630	1010	2590	584	534	1490
MIN	50	98	150	120	250	564	414	330	230	85	36	111
CFSM	.39	1.08	1.30	.50	3.59	2.56	4.30	1.55	2.27	.50	.30	1.24
IN.	.45	1.21	1.50	.58	3.74	2.95	4.79	1.79	2.54	.57	.35	1.39

CAL YR 1980 TOTAL 231653 MEAN 633 MAX 7250 MIN 50 CFSM 1.66 IN 22.56
WTR YR 1981 TOTAL 224323 MEAN 615 MAX 9630 MIN 36 CFSM 1.61 IN 21.85

03079000 CASSELMAN RIVER AT MARKLETON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February to October 1956, October 1968 to September 1972, November 1975 to August 1978, November 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
DEC										
02...	1130	836	250	6.7	17.0	--	--	120	62	--
JAN										
29...	0940	500	280	7.0	.0	--	--	10	56	152
MAR										
10...	1130	527	280	5.2	3.0	.4	20	4	88	178
MAY										
27...	1100	466	265	7.2	18.0	--	--	6	87	168

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
DEC										
02...	--	--	1900	1600	270	500	0	570	22	50
JAN										
29...	.21	--	660	600	60	310	100	210	--	--
MAR										
10...	.24	253	2100	1400	720	740	0	760	15	21
MAY										
27...	.23	211	930	920	10	720	0	740	22	28

03080000 LAUREL HILL CREEK AT URSINA, PA

LOCATION.--Lat 39°49'13", long 79°19'18", Somerset County, Hydrologic Unit 05020006, on right bank 500 ft (150 m) downstream from bridge on State Highway 281, at Ursina, and 2.7 mi (4.3 km) upstream from mouth.

DRAINAGE AREA.--121 mi^2 (313 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to September 1913 (gage heights and discharge measurement only). October 1918 to current year. Monthly discharge only for some periods, published in WSP 1305. October 1913 to September 1918 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 743: Drainage area. WSP 893: 1919-21, 1932-34. WSP 1305: 1922-31. WSP 1435: 1919-20. WSP 1625: 1932 (M).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 1,335.26 ft (406.987 m) National Geodetic Vertical Datum of 1929, unadjusted. Prior to July 18, 1939, nonrecording gage at bridge 0.5 mi (0.8 km) downstream at datum 6.20 ft (1.890 m) lower.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--63 years (1918-81), 267 ft^3/s (7.561 m^3/s), 29.97 in/yr (761 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft^3/s (309 m^3/s) Oct. 15, 1954, gage height, 10.63 ft (3.240 m), from rating curve extended above 6,100 ft^3/s (170 m^3/s) on basis of slope-area measurement of peak flow; minimum, 2.2 ft^3/s (0.062 m^3/s) Sept. 26, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 2	---	---	---	ice jam	
Feb. 6	---	---	---	ice jam	
Feb. 13	---	---	---	ice jam	
Feb. 18	1830	ice jam		*7.15	2.179
Apr. 13	0030	*4900	139	5.96	1.817

Minimum discharge, 11 ft^3/s (0.31 m^3/s) Oct. 24, Aug. 29, 30, gage height, 0.79 ft (0.241 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	74	238	74	140	900	390	301	181	135	98	341
2	18	65	316	70	380	610	378	255	147	101	77	178
3	19	57	419	68	290	467	296	219	149	83	85	156
4	20	55	327	66	220	369	257	192	414	74	70	329
5	21	52	275	62	180	350	236	169	651	82	65	376
6	19	47	244	60	160	297	210	163	457	72	57	189
7	18	43	220	58	145	248	178	148	366	60	53	127
8	17	66	272	66	145	214	157	123	261	48	47	122
9	16	139	391	72	145	194	154	108	317	44	40	169
10	16	206	597	78	300	185	165	100	524	41	37	107
11	17	128	438	86	760	190	164	275	532	36	33	79
12	18	99	351	96	500	186	2300	797	362	32	30	65
13	19	84	308	84	340	312	3220	421	283	32	28	56
14	16	78	262	76	280	507	2130	302	1120	181	27	50
15	14	72	237	68	250	363	1540	1180	881	88	31	136
16	13	71	196	58	270	913	930	930	483	55	44	333
17	12	83	177	50	450	750	647	628	403	47	33	253
18	14	373	140	46	800	505	575	470	281	41	26	156
19	15	244	120	40	1320	398	450	427	216	36	23	122
20	17	168	100	32	1930	320	370	364	186	38	19	100
21	16	152	88	50	2360	274	299	287	161	64	17	84
22	15	137	110	70	1420	235	256	234	224	77	16	73
23	14	127	130	110	1050	240	287	194	183	45	15	66
24	12	669	120	100	893	294	526	166	130	35	14	57
25	242	1020	110	78	637	295	729	143	171	33	14	49
26	494	598	105	110	479	300	583	129	232	32	14	45
27	181	422	98	200	377	648	500	178	146	119	13	41
28	130	358	92	430	533	688	410	158	113	117	13	39
29	137	303	86	290	---	571	374	160	93	498	12	37
30	108	249	80	180	---	538	361	138	90	214	17	35
31	88	---	76	110	---	471	---	259	---	135	82	---
TOTAL	1774	6239	6723	3038	16754	12832	19072	9618	9757	2695	1150	3970
MEAN	57.2	208	217	98.0	598	414	636	310	325	86.9	37.1	132
MAX	494	1020	597	430	2360	913	3220	1180	1120	498	98	376
MIN	12	43	76	32	140	185	154	100	90	32	12	35
CFSM	.47	1.72	1.79	.81	4.94	3.42	5.26	2.56	2.69	.72	.31	1.09
IN.	.55	1.92	2.07	.93	5.15	3.95	5.86	2.96	3.00	.83	.35	1.22

CAL YR 1980 TOTAL 86255 MEAN 236 MAX 1650 MIN 12 CFSM 1.95 IN 26.52
WTR YR 1981 TOTAL 93622 MEAN 256 MAX 3220 MIN 12 CFSM 2.12 IN 28.78

03080000 LAUREL HILL CREEK AT URSINA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
MAR									
22...	1030	217	121	6.8	3.0	7	13	70	.10
AUG									
12...	1530	28	94	8.3	30.0	16	9.5	52	.07

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR									
22...	41.0	230	220	10	30	0	30	4	2.3
AUG									
12...	3.9	150	130	20	20	--	<10	3	.23

BEST DOCUMENT AVAILABLE

03081000 YOUGHIOGHENY RIVER BELOW CONFLUENCE, PA

LOCATION.--Lat 39°49'39", long 79°22'22", Fayette County, Hydrologic Unit 05020006, on left bank 1.0 mi (1.6 km) downstream from Casselman River, 1.5 mi (2.4 km) northwest of Confluence, and at mile 72.0 (115.8 km).

DRAINAGE AREA.--1,029 mi^2 (2,665 km^2).

PERIOD OF RECORD.--June 1940 to current year. Monthly discharge only for June 1940, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 1,302.77 ft (397.084 m) National Geodetic Vertical Datum of 1929, unadjusted.

REMARKS.--Records good. Flow regulated since 1925 by Deep Creek Reservoir and since 1943 by Youghiogheny River Lake 1mi (2 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 1,999 ft^3/s (56.61 m^3/s), 26.38 in/yr (670 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,500 ft^3/s (1,970 m^3/s) Oct. 15, 1954, gage height, 19.92 ft (6.072 m), from rating curve extended above 25,000 ft^3/s (710 m^3/s) on basis of slope-area measurement of peak flow; minimum, 40 ft^3/s (1.13 m^3/s) Oct. 14, 1943, gage height, 0.31 ft (0.094 m); minimum daily, 121 ft^3/s (3.43 m^3/s) Sept. 27, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 17, or 18, 1936, reached a stage of 21.6 ft (6.584 m) from floodmarks, discharge, 85,000 ft^3/s (2,410 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,000 ft^3/s (598 m^3/s) Apr. 13, gage height, 11.33 ft (3.453 m); minimum, 365 ft^3/s (10.3 m^3/s) Jan. 18,19, gage height, 1.51 ft (0.460 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	1550	1000	526	697	4660	2690	2820	1600	1190	933	2320
2	1320	1590	1510	495	3300	3270	2700	1970	1450	1140	870	1700
3	1570	1580	2250	467	2510	2710	2400	1730	1640	1160	926	2100
4	1600	1550	1930	428	1640	2310	2240	2700	2430	1080	1300	2200
5	1600	1510	1860	404	1260	2240	1910	3310	3660	1080	1030	2300
6	1570	1200	1730	428	1100	2290	1530	2610	3090	1060	939	1230
7	1440	1180	1660	452	1030	2350	1430	1750	4830	997	968	943
8	1450	1210	1810	452	949	2210	1240	1470	4800	946	962	1350
9	1440	1340	2080	422	786	2100	1090	1380	4740	908	876	1980
10	1430	1680	3580	408	727	2060	1100	1330	5300	886	919	1640
11	1420	1400	3150	389	2340	2050	1090	1480	6550	864	954	1600
12	1410	1280	2780	384	2960	2020	6730	2560	6190	848	869	1700
13	1400	1210	2620	385	1800	2360	16400	1810	4470	844	857	1640
14	1380	923	2420	388	1520	3340	10800	1560	5210	1280	907	1610
15	1370	557	1980	392	1330	2670	9430	3320	5810	1020	1020	1850
16	1360	476	1650	390	1320	3830	7600	2960	5000	1050	1110	3130
17	1340	510	1380	381	2330	3580	6500	2270	5080	1380	1070	2900
18	1340	1410	1070	374	4180	2840	6530	1930	4220	1350	1030	2240
19	1110	1160	1090	373	4880	2650	6010	2320	2630	1100	1010	2000
20	621	906	831	373	5900	2380	5500	3550	1880	822	993	1870
21	528	871	628	379	8230	2260	5130	4330	1870	870	977	1790
22	449	569	594	393	5790	2090	4840	3410	2000	806	965	1940
23	401	545	607	396	4800	2150	4020	1840	2050	713	956	2140
24	691	2000	581	395	4880	2360	2840	1730	1720	736	948	2090
25	1570	4130	493	385	3420	2380	3010	1640	1680	814	941	2050
26	3060	2360	449	422	2860	2380	2790	1570	2180	820	941	2010
27	1730	1650	460	995	2520	3280	3070	1740	1820	1030	937	1970
28	1610	1390	465	1280	2710	3790	3620	1680	1600	1050	1000	1740
29	1590	1550	493	1080	---	3280	3940	1880	1490	1710	1090	1470
30	1550	1050	563	738	---	3170	3950	1920	1340	1110	1100	1450
31	1550	---	569	614	---	2980	---	2010	---	932	1280	---
TOTAL	42190	40337	44283	15388	77769	84040	132130	68580	98330	31596	30678	56953
MEAN	1361	1345	1428	496	2777	2711	4404	2212	3278	1019	990	1898
MAX	3060	4130	3580	1280	8230	4660	16400	4330	6550	1710	1300	3130
MIN	401	476	449	373	697	2020	1090	1330	1340	713	857	943
†	-978	-13.4	+191	+119	+1610	+274	+230	-35.3	+79.3	-226	-554	-617
MEAN‡	383	1332	1619	615	4387	2985	4634	2177	3357	793	436	1281
CFSM‡	.37	1.29	1.57	.60	4.26	2.90	4.50	2.12	3.26	.77	.42	1.24
IN.‡	.43	1.44	1.81	.69	4.44	3.34	5.02	2.44	3.64	.89	.48	1.38

CAL YR 1980 TOTAL 711443 MEAN 1944 MAX 8360 MIN 391 ADJ -19.7 MEAN‡ 1924 CFSM‡ 1.87 IN.‡ 25.46
WTR YR 1981 TOTAL 722274 MEAN 1979 MAX 16400 MIN 373 ADJ -5.4 MEAN‡ 1974 CFSM‡ 1.92 IN.‡ 26.00

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Pennsylvania Electric Co.

‡ Adjusted for change in reservoir contents.

03082500 YOUGHIOGHENY RIVER AT CONNELLSVILLE, PA

LOCATION.--Lat 40°01'03", long 79°35'38", Fayette County, Hydrologic Unit 05020006, on left bank at downstream side of Crawford Avenue Bridge at Connellsville, 1.2 mi (1.9 km) upstream from Mounts Creek, and at mile 44.0 (70.8 km).

DRAINAGE AREA.--1,326 mi^2 (3,434 km^2).

PERIOD OF RECORD.--July 1908 to current year. Monthly discharge only for periods, published in WSP 1305.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1912 (M), 1914 (M), 1916-17 (M), 1918, 1922-25, WSP 1435: 1919-20. WSP 1725: 1916, 1932 (monthly, yearly summaries).

GAGE.--Water-stage recorder. Datum of gage is 860.13 ft (262.168 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 15, 1928, nonrecording gage, and Aug. 15, 1928, to July 7, 1958, water-stage recorder at same site and datum. July 8, 1958, to Sept. 8, 1959, nonrecording gage at site 0.4 mi (0.6 km) downstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1925 by Deep Creek Reservoir and since 1943 by Youghiogheny River Lake 29.4 mi (47.3 km) upstream and by several smaller reservoirs above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--73 years, 2,572 ft^3/s (72.84 m^3/s), 26.34 in/yr (669 mm/yr), adjusted for storage since August 1925.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft^3/s (2,920 m^3/s) Oct. 16, 1954, gage height, 21.96 ft (6.693 m), from rating curve extended above 55,000 ft^3/s (1,600 m^3/s); minimum, 11 ft^3/s (0.31 m^3/s) Sept. 23, 26, 27, 1908, Oct. 18, 1910, gage height, 0.11 ft (0.034 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,800 ft^3/s (957 m^3/s) Apr. 13, gage height, 13.37 ft (4.075 m); minimum daily, 506 ft^3/s (14.3 m^3/s) Oct. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1360	1590	1590	740	980	6160	3390	4020	2310	1640	1260	2570
2	1370	1540	1850	700	2720	4760	3330	2520	1930	1490	1200	2260
3	1650	1510	2900	640	4920	3860	3010	2280	1960	1500	1150	2440
4	1690	1490	2660	620	3460	3220	2780	2510	3010	1510	1440	2580
5	1690	1470	2510	600	2690	3150	2610	3620	5160	1410	1350	3010
6	1650	1420	2330	580	1800	3090	2040	3320	4050	1400	1190	1860
7	1630	1390	2210	620	1500	3170	1870	2240	5380	1300	1160	1250
8	1600	1470	2310	660	1400	2880	1740	1780	5380	1230	1210	1380
9	1590	1630	2880	660	1200	2690	1520	1670	5800	1180	1120	2190
10	1580	2000	4440	660	1100	2630	1570	1590	6100	1140	1060	1980
11	1580	1760	4270	620	2770	2660	1540	1580	7750	1100	1180	1740
12	1560	1570	3640	580	4660	2610	10400	2630	7150	1070	1080	1910
13	1500	1480	3350	540	2940	2830	28800	2300	6060	1060	1050	1850
14	1530	1400	3090	660	2630	4040	14800	1860	6970	1410	1040	1790
15	1520	882	2750	600	2250	3530	12300	4130	8700	1540	1190	2090
16	1500	754	2220	540	2040	4660	9400	4480	6310	1220	1300	3450
17	1490	754	2060	520	3040	5280	7700	3350	6140	1460	1290	3690
18	1500	1890	1560	560	5600	4040	7480	2750	5440	1550	1220	2720
19	1500	2100	1540	620	6800	3640	7040	2820	3890	1510	1180	2360
20	882	1490	1300	680	8970	3180	6250	3840	2540	1110	1150	2180
21	778	1360	1030	720	15400	2960	5760	4620	2400	1170	1140	2050
22	594	1010	930	540	9420	2700	5340	4600	2640	1190	1130	2020
23	578	940	740	540	6860	2700	5160	2310	2850	1050	1120	2370
24	506	1840	800	560	7020	3010	3840	2100	2340	918	1110	2300
25	1450	5920	740	580	5160	3070	4090	1960	2220	1000	1110	2230
26	3750	3820	680	580	4020	3060	3750	1890	2610	1060	1100	2190
27	2220	2700	600	800	3510	3800	3980	1870	2490	1260	1100	2150
28	1900	2280	620	1300	3390	4920	4040	2160	2060	1520	1090	2070
29	1870	2000	660	2000	---	4230	4580	2240	1860	2310	1240	1640
30	1780	1740	700	1600	---	4040	4640	2430	1760	1870	1310	1620
31	1670	---	760	1200	---	3820	---	2780	---	1350	1590	---
TOTAL	47468	53200	59720	22820	118250	110390	174750	84250	125260	41528	36860	65940
MEAN	1531	1773	1926	736	4223	3561	5825	2718	4175	1340	1189	2198
MAX	3750	5920	4440	2000	15400	6160	28800	4620	8700	2310	1590	3690
MIN	506	754	600	520	980	2610	1520	1580	1760	918	1040	1250
†	-978	-13.4	+191	+119	+1610	+274	+230	-35.4	+79.3	-226	-554	-617
Mean‡	553	1760	2117	855	5833	3835	6055	2683	4254	1114	635	1581
CFSM‡	.42	1.33	1.60	.64	4.40	2.89	4.57	2.02	3.21	.84	.48	1.19
IN.‡	.48	1.48	1.84	.74	4.58	3.33	5.10	2.33	3.58	.97	.55	1.33

CAL YR 1980 TOTAL 916928 MEAN 2505 MAX 12100 MIN 506 ADJ -19.7 MEAN‡ 2485 CFSM‡ 1.87 IN.‡ 25.51
WTR YR 1981 TOTAL 940436 MEAN 2577 MAX 28800 MIN 506 ADJ -5.1 MEAN‡ 2572 CFSM‡ 1.94 IN.‡ 26.31

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Pennsylvania Electric Co.

‡ Adjusted for change in contents.

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA

LOCATION.--Lat 40°14'24", long 79°48'24", Allegheny County, Hydrologic Unit 05020006, on left bank 500 ft (150 m) upstream from highway bridge at Sutersville, 2.1 mi (3.4 km) downstream from Sewickley Creek, and at mile 15.2 (24.5 km).

DRAINAGE AREA.--1,715 mi^2 (4,442 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORD.--WSP 743: Drainage area. WSP 1305: 1924, 1926 (M), 1931 (M). WSP 1435: 1935-36.

GAGE.--Water-stage recorder. Datum of gage is 733.36 ft (223.528 m) National Geodetic Vertical Datum of 1929. Prior to June 1, 1939, nonrecording gage at site 500 ft (150 m) downstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1925 by Deep Creek Reservoir and since 1943 by Youghiogheny River Lake, 58 mi (93 km) upstream and by several smaller reservoirs above station. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--61 years, 3,027 ft^3/s (85.72 m^3/s), 23.97 in/yr (609 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 108,000 ft^3/s (3,060 m^3/s) Oct. 16, 1954, gage height, 32.5 ft (9.91 m), from floodmark; minimum observed, 57 ft^3/s (1.61 m^3/s) Sept. 29, 30, 1922.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42,800 ft^3/s (1,210 m^3/s) Apr. 13, gage height, 18.79 ft (5.727 m); minimum daily, 571 ft^3/s (16.2 m^3/s) Oct. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	1640	1980	800	1200	6650	3840	4910	2620	1840	1350	2770
2	1320	1570	1990	740	2800	5950	3670	3280	2070	1630	1270	4090
3	1520	1520	2980	680	7210	4690	3410	2840	2070	1610	1180	4300
4	1660	1490	3250	620	4200	3920	3100	2500	3460	1580	1520	5430
5	1680	1470	2860	600	3040	3920	2960	3820	6080	1460	1670	4890
6	1650	1420	2700	600	2200	4050	2480	3890	4610	1440	1300	3090
7	1630	1380	2520	660	1900	3870	2140	2920	5360	1350	1200	1890
8	1590	1420	2520	740	1700	3560	1970	2240	5580	1240	1200	1640
9	1580	1540	3030	740	1600	3290	1800	1950	6520	1170	1160	2210
10	1550	1900	4640	720	1500	3160	1820	1840	6780	1130	1070	2420
11	1550	1980	5120	680	3000	3140	1910	1870	8720	1080	1090	1980
12	1520	1650	4250	640	6000	3100	14000	2460	7930	1040	1120	1960
13	1520	1500	3860	620	3600	3140	35900	2940	6960	1030	1030	2000
14	1490	1420	3560	680	3200	4040	20800	2230	7150	1990	1010	1910
15	1470	1160	3240	680	2800	4120	16800	3380	10400	1870	1050	2040
16	1460	812	2680	680	2600	4460	12100	5650	6980	1310	1210	2970
17	1450	732	2420	660	3800	6320	9490	4100	6870	1330	1270	4060
18	1470	1750	1950	660	5000	4810	8920	3310	6000	1560	1190	3090
19	1500	2680	1710	660	7670	4160	8500	2970	4420	1500	1140	2550
20	1240	1790	1550	660	9560	3720	7350	3560	2870	1320	1100	2300
21	764	1450	1020	760	22600	3430	6700	4640	2610	1300	1080	2150
22	708	1370	940	700	15300	3210	6150	5200	3170	1430	1060	2050
23	593	1020	880	700	9750	3120	6030	3270	3300	1120	1040	2270
24	571	1820	840	720	9590	3340	5090	2370	2690	942	1040	2350
25	1080	6780	1050	740	7190	3500	4780	2200	2700	909	1030	2270
26	3730	5100	940	760	5390	3450	4710	2070	3230	1230	1020	2210
27	2970	3480	840	1000	4570	3840	4570	2140	2940	1960	1010	2170
28	2070	2920	760	1500	4040	5420	4400	2330	2360	2110	1000	2120
29	1980	2610	840	2480	---	4820	5250	2300	2070	3490	1080	1810
30	1880	2300	960	1780	---	4460	5280	2470	1910	2620	1250	1600
31	1750	---	900	1390	---	4300	---	2840	---	1640	1800	---
TOTAL	48266	59674	68780	26050	153010	126960	215920	94490	140430	47231	36540	78590
MEAN	1557	1989	2219	840	5465	4095	7197	3048	4681	1524	1179	2620
MAX	3730	6780	5120	2480	22600	6650	35900	5650	10400	3490	1800	5430
MIN	571	732	760	600	1200	3100	1800	1840	1910	909	1000	1600
†	-978	-13.4	+191	+119	+1610	+274	+230	-35.3	+79.3	-226	-554	-617
MEAN‡	579	1976	2410	959	7075	4369	7427	3013	4760	1298	625	2003
CFSM‡	.34	1.15	1.41	.56	4.13	2.55	4.33	1.76	2.78	.76	.36	1.17
IN.‡	.39	1.28	1.63	.65	4.30	2.94	4.83	2.03	3.10	.88	.42	1.31

CAL YR 1980 TOTAL 1082647 MEAN 2958 MAX 15000 MIN 571 ADJ -19.7 MEAN‡ 2938 CFSM‡ 1.71 IN.‡ 23.35
WTR YR 1981 TOTAL 1095941 MEAN 3003 MAX 35900 MIN 571 ADJ -5.1 MEAN‡ 2998 CFSM‡ 1.75 IN.‡ 23.76

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Pennsylvania Electric Co.

‡ Adjusted for change in contents.

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV										
05...	0800	1470	255	7.0	10.0	10.6	7	490	.38	.11
DEC										
05...	0830	2900	247	7.0	2.0	14.0	10	900	.83	.29
FEB										
18...	0900	5980	220	7.1	3.5	12.8	--	870	1.3	.72
MAR										
17...	0900	6440	180	7.0	3.0	12.8	20	240	1.3	.53
APR										
22...	0830	6200	190	6.9	8.5	10.8	14	970	1.1	.49
MAY										
19...	1415	2960	235	7.0	12.0	10.0	<10	870	.95	.45
JUN										
25...	1000	2500	275	7.0	20.0	9.2	<10	1600	.98	.48
AUG										
04...	0830	1590	435	7.8	23.0	7.4	10	K7600	1.1	.19
SEP										
02...	1230	4530	260	6.8	23.0	7.5	62	19200	1.1	1.60
24...	1100	2330	180	7.3	16.0	9.6	<5	390	.68	.44

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV										
05...	.49	2.2	.030	.09	11	0	30	.00	7	28
DEC										
05...	1.1	5.0	.110	.34	21	1	40	.00	25	196
FEB										
18...	2.0	8.9	.020	.06	27	1	70	<.01	123	1990
MAR										
17...	1.8	8.1	.070	.21	140	0	60	<.01	51	887
APR										
22...	1.6	7.0	.040	.12	17	0	80	<.01	18	301
MAY										
19...	1.4	6.2	.020	.06	22	0	40	<.01	9	72
JUN										
25...	1.5	6.5	.060	.18	7	0	30	<.01	26	175
AUG										
04...	1.3	5.7	.190	.58	17	2	120	<.01	41	176
SEP										
02...	2.7	12	.420	1.3	33	<1	110	<.01	--	--
24...	1.1	5.0	.010	.03	7	<1	120	<.01	31	195

03084000 ABERS CREEK NEAR MURRYSVILLE, PA

LOCATION.--Lat 40°27'01", long 79°42'50", Allegheny County, Hydrologic Unit 05020005, on right bank at downstream side of highway bridge, 30 ft (9 m) upstream from small tributary, 2 mi (3 km) northwest of Murrysville, and 5 mi (8 km) northwest of Export.

DRAINAGE AREA.--4.39 mi^2 (11.37 km^2).

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 936.73 ft (285.515 m) National Geodetic Vertical Datum of 1929 (Pennsylvania Department of Transportation bench mark). Prior to Oct. 1, 1950, water-stage recorder at site 800 ft (240 m) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 5.34 ft^3/s (0.151 m^3/s), 16.52 in/yr (420 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft^3/s (45.3 m^3/s) July 5, 1950, gage height, 7.72 ft (2.353 m), from floodmarks at present site, from rating curve extended above 910 ft^3/s (26 m^3/s) on basis of contracted-opening measurement of peak flow; no flow at times during some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.66 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 5	1515	304	8.61	4.12	1.256	July 21	1615	*422	12.0	*4.59	1.399
June 9	0700	206	5.83	3.47	1.058	July 26	0830	390	11.0	4.45	1.356
June 25	1615	213	6.03	3.52	1.073	Aug. 31	1715	280	7.93	3.90	1.189
July 13	2015	386	10.9	4.43	1.350						

Minimum discharge, 0.20 ft^3/s (0.006 m^3/s) Nov. 17, gage height, 1.33 ft (0.405 m)

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	1.3	3.1	1.4	5.0	7.8	5.6	6.7	2.4	2.5	3.1	2.7
2	1.0	1.2	5.0	1.4	15	7.0	5.0	5.6	5.6	2.4	2.4	4.4
3	1.1	1.1	4.2	1.5	10	6.0	4.7	5.0	14	2.2	4.4	19
4	.93	1.4	3.1	1.8	6.0	5.6	4.7	4.7	4.1	1.9	4.1	28
5	.85	1.1	2.8	2.1	5.0	13	6.7	4.4	3.1	24	2.1	5.0
6	.77	1.0	2.7	2.6	3.1	8.1	4.4	5.6	3.6	4.1	1.8	2.5
7	.85	1.0	2.7	3.2	2.6	7.0	4.1	4.1	2.7	2.5	1.8	2.1
8	.85	2.0	2.6	3.0	2.2	6.3	3.9	3.6	4.4	2.1	1.7	14
9	.77	2.6	3.7	2.9	5.0	6.0	4.0	3.4	24	1.9	1.5	2.9
10	.77	1.8	3.3	3.0	7.0	6.3	3.9	3.4	16	1.7	1.4	2.1
11	1.7	1.4	2.8	2.8	11	6.0	4.4	14	4.4	1.6	1.3	1.7
12	.85	1.2	2.8	2.1	7.0	5.6	6.4	6.3	2.7	1.6	1.4	1.9
13	.85	1.2	2.6	3.5	4.6	5.6	10	4.4	5.0	40	1.0	1.6
14	.77	1.0	2.4	2.2	4.0	6.0	7.6	5.3	18	12	.95	1.8
15	.77	1.2	3.1	1.7	4.2	5.6	6.0	14	4.1	3.4	1.3	2.1
16	.77	1.0	2.6	1.1	4.5	13	5.0	6.3	14	2.7	1.2	8.5
17	.69	.85	2.2	1.0	6.6	6.7	4.8	5.0	5.6	2.4	.95	2.7
18	1.6	2.3	2.4	.90	5.2	7.0	6.2	4.4	3.1	2.1	.88	1.7
19	.93	1.9	2.0	1.0	9.0	5.3	5.6	4.1	2.5	1.8	.80	1.6
20	.85	1.9	1.8	1.1	26	5.0	5.3	3.6	2.4	28	.80	1.5
21	.85	2.4	2.0	1.2	34	9.2	4.7	3.4	4.1	57	.73	1.4
22	.77	2.8	2.6	1.3	17	7.8	4.4	3.1	9.8	16	.66	2.5
23	.69	3.1	2.1	1.2	34	9.2	8.5	2.9	2.9	6.0	.60	1.5
24	.77	23	1.6	1.1	21	9.8	5.3	2.9	2.2	4.1	.80	1.2
25	18	5.8	1.7	1.1	14	8.5	5.0	2.7	40	3.1	.60	1.1
26	3.1	3.6	2.0	2.1	9.8	7.8	4.7	3.1	9.8	55	.55	1.1
27	1.9	4.3	2.5	4.1	7.8	10	4.1	2.9	4.7	14	.55	1.1
28	2.2	4.3	3.0	2.6	12	5.6	9.8	3.4	3.4	6.0	.55	1.0
29	1.4	4.0	2.0	1.9	---	5.6	18	2.9	2.7	20	.55	1.0
30	1.3	3.4	1.6	3.3	---	7.0	9.2	2.9	2.9	7.8	7.4	1.0
31	1.3	---	1.5	2.1	---	5.6	---	2.5	---	4.4	19	---
TOTAL	50.80	85.15	80.5	62.30	292.6	225.0	182.0	146.6	224.2	334.3	66.87	120.7
MEAN	1.64	2.84	2.60	2.01	10.5	7.26	6.07	4.73	7.47	10.8	2.16	4.02
MAX	18	23	5.0	4.1	34	13	18	14	40	57	19	28
MIN	.69	.85	1.5	.90	2.2	5.0	3.9	2.5	2.2	1.6	.55	1.0
CFSM	.37	.65	.59	.46	2.39	1.65	1.38	1.08	1.70	2.46	.49	.92
IN.	.43	.72	.68	.53	2.48	1.91	1.54	1.24	1.90	2.83	.57	1.02

CAL YR 1980 TOTAL 2207.36 MEAN 6.03 MAX 187 MIN .69 CFSM 1.37 IN 18.70
WTR YR 1981 TOTAL 1871.02 MEAN 5.13 MAX 57 MIN .55 CFSM 1.17 IN 15.85

03085000 MONONGAHELA RIVER AT BRADDOCK, PA
(National stream quality accounting network and Pesticide program)

LOCATION.--Lat 40°23'28", long 79°51'30", Allegheny County, Hydrologic Unit 05020005, near right bank on river guide wall 300 ft (90 m) upstream from dam at lock 2, at Braddock, 1,700 ft (520 m) downstream from Turtle Creek, and 11.2 mi (18.0 km) upstream from confluence with Allegheny River. Water-quality sampling site at Rankin Bridge, 1.7 mi (2.7 km) downstream.

DRAINAGE AREA.--7,337 mi² (19,003 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder and fixed-crest concrete dam control with streamward lock chamber usable as floodway during high flow since 1951. Datum of gage is 707.16 ft (215.542 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 13, 1951, at site 700 ft (210 m) upstream at same datum.

REMARKS.--Records good. Flow regulated by locks and hydroelectric plants, since 1938 by Tygart, since 1926 by Lake Lynn, since 1925 by Deep Creek Reservoir, and since 1943 by Youghiogheny River Lake, combined capacity, 704,300 acre-ft (868 hm³). Figures of daily discharge include slight diversion from Beaver Run Reservoir in the Kiskiminetas River basin to the Borough of Jeannette in the Monongahela River basin.

AVERAGE DISCHARGE.--43 years, 12,520 ft³/s (354.6 m³/s), 23.17 in/yr (589 mm/yr), adjusted for storage and diversion 1938-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 201,000 ft³/s (5,690 m³/s) June 5, 1941, gage height, 31.20 ft (9.510 m); maximum gage height, 31.39 ft (9.568 m) June 24, 1972 (backwater from Allegheny River); minimum discharge, 559 ft³/s (15.8 m³/s) Sept. 20, 22, 23, 1946; minimum daily, 703 ft³/s (19.9 m³/s) Sept. 3, 4, 22, 1946; minimum gage height, 12.01 ft (3.661 m) Oct. 7-13, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 38.8 ft (11.83 m) from floodmarks, discharge, 210,000 ft³/s (5,950 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 104,000 ft³/s (2,940 m³/s) June 1, gage height, 22.49 ft (6.855 m); minimum daily, 1,300 ft³/s (36.8 m³/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3090	4470	13300	6000	6970	28100	20900	14000	28900	7040	4340	4000
2	3260	3880	14400	4960	21200	32900	16900	22900	23400	7530	3700	8400
3	3130	3580	19300	5530	38700	26700	18300	23400	22800	7200	4040	11400
4	3650	3920	19500	6000	20500	22000	14400	17800	21600	7090	4920	16300
5	3510	3770	16800	5450	16600	21400	11800	18000	34300	6590	3470	21600
6	3400	3260	13400	4780	14700	26600	10600	18400	58200	6230	2400	12800
7	3260	3620	12100	4210	13000	25000	9810	13500	94000	6220	4180	7900
8	3580	3960	12200	4590	11700	19900	9140	9140	57700	6520	3790	5900
9	3770	3690	15400	3600	8350	18000	7730	7870	42200	5160	2600	6300
10	3510	3260	23600	4900	11400	16600	8850	6910	41400	5230	3440	8740
11	3160	4390	27300	3800	14200	16000	8400	7290	59300	5150	2620	6710
12	3060	4230	22500	3300	21300	14000	41100	8890	46200	3170	3170	6060
13	3020	4390	17400	4600	19000	11800	85800	10900	37400	3370	2910	4560
14	3260	3650	13100	3800	18800	12400	55900	10900	38500	4810	3370	5020
15	3090	2600	10400	4000	16000	11400	44800	15600	56900	5500	2280	5950
16	2900	2660	9370	4300	16300	12400	32300	28000	37400	4560	1500	10100
17	3730	2630	8850	3800	17200	16100	24400	21700	27700	4090	2460	12500
18	3190	12100	8000	3000	25500	13800	26800	18400	18400	3350	2540	12300
19	3130	22000	5500	3400	28100	14000	27400	19100	12800	2660	3510	8980
20	2900	15000	5220	2700	32900	11200	23100	38700	10200	3120	2200	7990
21	2600	13200	4150	3300	71000	10500	21900	38000	12800	5250	3400	7280
22	2600	10100	3260	4000	60800	8980	19500	29300	20000	5270	2000	6990
23	2480	7690	4310	5000	42800	8200	18300	22800	20800	4450	1300	7000
24	2120	9020	5170	4790	55400	8480	19500	14500	15800	3660	2000	5930
25	3400	28100	4630	5400	44000	10200	18500	9330	14200	3410	1400	4600
26	8340	27900	3060	16000	33600	9360	18200	8490	15600	4440	2700	3910
27	8340	21900	2840	33000	25500	12700	16500	8130	13300	6620	1600	3200
28	6140	19700	2780	21000	23100	22700	18900	8300	10500	9080	2200	4260
29	6090	18900	2990	15000	---	25600	18100	13500	8230	16200	3000	3330
30	4920	15300	4670	12000	---	21900	16200	15100	6690	11500	1600	3120
31	5740	---	7400	9000	---	21700	---	18000	---	6700	4100	---
TOTAL	118370	282870	332900	215210	728620	530620	684030	516850	907220	181170	88740	233130
MEAN	3818	9429	10740	6942	26020	17120	22800	16670	30240	5844	2863	7771
MAX	8340	28100	27300	33000	71000	32900	85800	38700	94000	16200	4920	21600
MIN	2120	2600	2780	2700	6970	8200	7730	6910	6690	2660	1300	3120

CAL YR 1980	TOTAL	5083540	MEAN	13890	MAX	96800	MIN	2120
WTR YR 1981	TOTAL	4819730	MEAN	13200	MAX	94000	MIN	1300

03085000 MONONGAHELA RIVER AT BRADDOCK, PA--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1958 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN DIS-SOLVED (MG/L AS N)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV										
05...	1200	4030	575	7.4	13.0	.50	10.0	1.3	2000	270
DEC										
05...	1130	14800	243	6.4	5.0	3.5	10.8	1.2	1200	140
JAN										
15...	0930	4070	500	7.2	1.5	.80	10.2	1.7	1300	130
FEB										
18...	1230	25300	330	7.2	5.0	.60	13.8	1.4	1700	460
MAR										
17...	1315	14800	295	7.0	5.0	.90	12.4	1.6	K790	180
APR										
22...	1300	14300	265	7.2	12.0	3.3	10.4	1.2	560	160
MAY										
22...	0930	29900	200	7.2	14.0	29	10.4	.90	1100	140
JUN										
24...	1015	15300	290	7.1	21.5	21	8.6	1.2	1000	250
AUG										
04...	1115	3640	505	7.8	25.0	45	6.8	1.7	8000	6300
SEP										
02...	0930	7500	460	7.6	24.5	21	6.4	1.6	4800	1000
24...	1300	4470	415	7.7	19.5	15	8.6	1.2	930	5100

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV										
05...	190	170	56	13	55	38	1.7	3.4	40	230
DEC										
05...	76	53	21	5.6	13	27	.7	1.9	20	68
JAN										
15...	140	110	39	10	35	35	1.3	2.5	--	150
FEB										
18...	100	83	29	7.1	18	27	.8	1.6	26	85
MAR										
17...	--	--	--	--	--	--	--	1.5	20	80
APR										
22...	95	--	27	6.7	12	21	.5	1.6	22	77
MAY										
22...	66	--	19	4.6	8.3	21	.4	1.3	--	56
JUN										
24...	95	--	27	6.7	11	2 D	.5	1.7	--	87
AUG										
04...	160	--	49	10	28	27	1.0	3.0	58	150
SEP										
02...	130	--	39	8.6	32	34	1.2	2.7	--	150
24...	160	--	44	11	25	26	.9	2.2	28	150

BEST DOCUMENT AVAILABLE

03085000 MONONGAHELA RIVER AT BRADDOCK, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
NOV										
05...	20	.3	3.5	423	402	.58	4600	.99	1.0	.320
DEC										
05...	8.9	.1	5.5	153	142	.21	6110	.88	.91	.140
JAN										
15...	23	.2	6.5	297	288	.40	3260	.90	.90	.690
FEB										
18...	15	.1	5.4	201	178	.27	13700	1.1	1.1	.140
MAR										
17...	16	.1	6.2	177	12	.24	7070	1.2	1.2	.180
APR										
22...	9.0	.1	5.7	179	158	.24	6910	.99	.99	.080
MAY										
22...	5.4	.1	4.8	126	118	.17	10200	.66	.64	.050
JUN										
24...	7.2	.1	6.2	185	166	.25	7640	.73	.73	.060
AUG										
04...	18	.2	5.8	316	292	.43	3110	.98	.97	.120
SEP										
02...	19	.2	4.0	313	281	.43	6340	.96	.93	.170
24...	12	.2	4.2	296	269	.40	3570	.70	.79	.130

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
NOV										
05...	.300	.39	.39	.23	.03	.55	.22	.33	1.5	6.8
DEC										
05...	.140	.17	.18	.27	.13	.41	.14	.27	1.3	5.7
JAN										
15...	.680	.83	.88	.02	.12	.71	.00	.80	1.6	7.1
FEB										
18...	.150	--	.19	.53	.18	.67	.34	.33	1.8	7.8
MAR										
17...	.180	--	.23	.49	.21	.67	.28	.39	1.9	8.3
APR										
22...	.100	--	.13	.45	.14	.53	.29	.24	1.5	6.7
MAY										
22...	.060	--	.08	.50	.20	.55	.29	.26	1.2	5.4
JUN										
24...	.100	--	.13	.54	.37	.60	.13	.47	1.3	5.9
AUG										
04...	.140	--	.18	.56	.55	.68	.00	.69	1.7	7.3
SEP										
02...	.140	--	.18	.67	.51	.84	.19	.65	1.8	8.0
24...	.120	--	.15	.38	.32	.51	.07	.44	1.2	5.4

03085000 MONONGAHELA RIVER AT BRADDOCK, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 05...	.100	.31	.030	3.1	--	--	1600	21	229	90
DEC 05...	.090	.25	.010	--	2.3	--	--	38	1520	93
JAN 15...	.060	.18	.020	1.8	--	--	--	11	121	86
FEB 18...	.130	.40	<.010	2.4	--	--	--	51	3480	--
MAR 17...	.080	.25	<.010	--	1.2	.7	39	43	1720	--
APR 22...	.010	.03	<.010	1.7	--	--	--	12	463	89
MAY 22...	.100	.31	<.010	3.8	--	--	1300	78	6300	96
JUN 24...	.070	.21	<.010	--	1.4	--	360	58	2400	97
AUG 04...	.180	.55	.030	7.0	--	--	19000	99	973	--
SEP 02...	.100	.31	.020	2.7	--	--	1400	38	769	98
24...	.080	.25	.020	--	1.0	.7	600	49	591	81

DATE	TIME	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
NOV 05...	1200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
NOV 05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

03085000 MONONGAHELA RIVER AT BRADDOCK, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
NOV											
05...	1200	--	--	--	--	--	--	--	--	--	--
DEC											
05...	1130	2	1	1	100	60	40	0	0	0	30
JAN											
15...	0930	--	--	--	--	--	--	--	--	--	--
FEB											
18...	1230	--	--	--	--	--	--	--	--	--	--
MAR											
17...	1315	0	--	--	100	--	--	0	0	0	10
APR											
22...	1300	--	--	--	--	--	--	--	--	--	--
MAY											
22...	0930	--	--	--	--	--	--	--	--	--	--
JUN											
24...	1015	1	1	0	100	40	60	1	0	1	20
SEP											
02...	0930	--	--	--	--	--	--	--	--	--	--
24...	1300	3	1	2	100	0	100	1	--	<1	10

DATE	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
NOV											
05...	--	--	--	--	--	--	--	--	1700	1700	0
DEC											
05...	20	10	8	7	1	19	19	0	33000	33000	60
JAN											
15...	--	--	--	--	--	--	--	--	2300	2300	0
FEB											
18...	--	--	--	--	--	--	--	--	5100	5100	0
MAR											
17...	--	<10	6	2	4	8	6	2	2900	2900	10
APR											
22...	--	--	--	--	--	--	--	--	930	910	20
MAY											
22...	--	--	--	--	--	--	--	--	4000	4000	30
JUN											
24...	10	10	4	1	3	6	1	5	2400	2400	20
SEP											
02...	--	--	--	--	--	--	--	--	2000	2000	10
24...	0	10	1	0	6	6	--	<1	3200	3200	10

03085000 MONONGAHELA RIVER AT BRADDOCK, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)
NOV											
05...	--	--	--	340	60	280	--	--	--	--	--
DEC											
05...	22	15	7	660	450	210	28	28	.5	2	0
JAN											
15...	--	--	--	460	70	390	--	--	--	--	--
FEB											
18...	--	--	--	450	220	230	--	--	--	--	--
MAR											
17...	23	19	4	400	100	300	<.1	--	<.1	16	5
APR											
22...	--	--	--	280	80	200	--	--	--	--	--
MAY											
22...	--	--	--	280	130	150	--	--	--	--	--
JUN											
24...	5	5	0	300	70	230	<.1	--	<.1	11	0
SEP											
02...	--	--	--	140	60	80	--	--	--	--	--
24...	10	8	2	260	120	140	<.1	--	<.1	16	10

DATE	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
05...	--	--	--	--	--	--	--	--	--	--
DEC										
05...	4	0	0	0	0	0	0	200	180	20
JAN										
15...	--	--	--	--	--	--	--	--	--	--
FEB										
18...	--	--	--	--	--	--	--	--	--	--
MAR										
17...	11	0	--	--	0	0	0	--	--	--
APR										
22...	--	--	--	--	--	--	--	--	--	--
MAY										
22...	--	--	--	--	--	--	--	--	--	--
JUN										
24...	11	0	0	0	0	0	0	50	20	30
SEP										
02...	--	--	--	--	--	--	--	--	--	--
24...	6	<1	--	<1	<1	--	<1	40	--	<10

03085500 CHARTIERS CREEK AT CARNEGIE, PA

LOCATION.--Lat 40°24'02", long 80°05'48", Allegheny County, Hydrologic Unit 05030101, on left bank 60 ft (18 m) downstream from Hammond Street bridge, 0.3 mi (0.5 km) downstream from Robinson Run, 0.8 mi (14.3 km) upstream from Campbells Run, and 8.9 mi (14.3 km) upstream from mouth.

DRAINAGE AREA.--257 mi^{2} (666 km^{2}).

PERIOD OF RECORD.--October 1919 to September 1933, October 1940 to current year. Published as "at Crafton", October 1971 to September 1975. Monthly discharge only for some periods, published in WSP 1305. June 1915 to September 1919 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

GAGE.--Water-stage recorder and concrete weir control. Datum of gage is 755.45 ft (230.261 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 15, 1931, nonrecording gage at site 0.5 mi (0.8 km) downstream at different datum. Jan. 8, 1932, to Sept. 30, 1933, nonrecording gage at site 1.0 mi (1.6 km) downstream at different datum. Nov. 20, 1940, to Aug. 18, 1967, water-stage recorder at site 400 ft (122 m) upstream at datum 1.00 ft (0.305 m) higher. Oct. 1, 1971, to Sept. 30, 1975, nonrecording gage at site 4.6 mi (7.4 km) downstream, at datum 725.99 ft (221.282 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair. Some regulations at low flow by mine drainage, reservoirs, and industrial usage above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--55 years, 293 ft^{3}/s (8.298 m^{3}/s), 15.48 in/yr (393 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft^{3}/s (382 m^{3}/s) Aug. 6, 1956, gage height, 16.37 ft (4.990 m) site and datum then in use; minimum observed, 16 ft^{3}/s (0.45 m^{3}/s) Aug. 9, 1926, and at times in Sept. 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 2, 1912 reached a discharge of 20,000 ft^{3}/s (566 m^{3}/s), from Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft^{3}/s (70.8 m^{3}/s) and maximum (*):

Date	Time	Discharge (ft^{3}/s)	Discharge (m^{3}/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^{3}/s)	Discharge (m^{3}/s)	Gage height (ft)	Gage height (m)
Apr. 12	1030	*5260	149	*7.20	2.195	July 29	0230	2840	80.4	4.84	1.475

Minimum discharge, 70 ft^{3}/s (1.98 m^{3}/s) Aug. 29, gage height, 1.20 ft (0.366 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	91	205	110	270	480	200	356	240	250	270	195
2	109	87	220	100	1450	417	190	320	374	210	240	314
3	113	84	275	90	529	380	176	290	543	181	225	676
4	109	87	210	82	368	344	172	275	892	163	270	732
5	105	87	185	90	290	459	240	270	392	149	210	290
6	98	84	167	105	275	564	195	314	320	141	185	190
7	98	84	172	150	225	459	176	260	644	137	181	149
8	98	129	185	120	255	392	167	235	1190	200	172	245
9	98	113	245	120	215	362	181	225	820	149	154	205
10	91	113	398	115	230	344	185	240	473	129	141	145
11	121	91	275	110	1040	332	320	290	344	125	137	129
12	94	84	235	110	473	302	4180	235	708	117	141	145
13	91	84	210	130	314	285	3250	210	660	109	133	121
14	91	84	185	120	338	265	1760	255	398	195	125	109
15	87	80	160	110	308	250	1190	280	417	392	133	141
16	87	80	170	98	332	308	828	220	296	170	145	137
17	87	80	163	94	684	338	748	195	275	125	125	141
18	101	133	158	90	652	280	724	185	260	105	117	117
19	98	145	154	86	644	260	578	181	235	100	105	133
20	87	113	137	84	1280	255	515	167	225	220	98	109
21	84	109	130	92	1320	250	445	163	494	796	94	94
22	80	121	140	100	780	260	410	149	265	578	91	121
23	77	125	120	94	1490	245	550	141	543	215	84	98
24	77	344	115	90	1400	240	487	137	417	167	84	91
25	392	374	110	86	844	230	438	133	265	145	84	87
26	320	215	125	185	636	215	386	163	225	724	80	87
27	145	235	145	356	529	235	380	158	501	606	80	87
28	137	296	125	245	515	235	487	431	716	1040	77	84
29	117	265	110	195	---	210	515	225	515	1480	73	87
30	101	235	130	154	---	205	404	230	290	494	163	87
31	98	---	120	154	---	220	---	176	---	332	205	---
TOTAL	3596	4252	5479	3865	17686	9621	20477	7109	13937	9944	4422	5346
MEAN	116	142	177	125	632	310	683	229	465	321	143	178
MAX	392	374	398	356	1490	564	4180	431	1190	1480	270	732
MIN	77	80	110	82	215	205	167	133	225	100	73	84
CFSM	.45	.55	.69	.49	2.46	1.21	2.66	.89	1.81	1.25	.56	.69
IN.	.52	.62	.79	.56	2.56	1.39	2.96	1.03	2.02	1.44	.64	.77

CAL YR 1980 TOTAL 165661 MEAN 453 MAX 5010 MIN 77 CFSM 1.76 IN 23.98
WTR YR 1981 TOTAL 105734 MEAN 290 MAX 4180 MIN 73 CFSM 1.13 IN 15.30

03086000 OHIO RIVER AT SEWICKLEY, PA

LOCATION.--Lat 40°32'57", long 80°12'21", Allegheny County, Hydrologic Unit 05030101, near left bank 50 ft (15 m) upstream from Dashields Dam, 1.0 mi (1.6 km) downstream from Narrows Run, 1.0 mi (1.6 km) northwest of Sewickley, and 13.3 mi (21.4 km) downstream from confluence of Allegheny and Monongahela Rivers.

DRAINAGE AREA.--19,500 mi^2 (50,500 km^2), approximately.

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WSP 1305: 1938-40 (adjusted monthly runoff). WSP 1435: 1934.

GAGE.--Water-stage recorder and fixed-crest concrete dam control. Datum of gage is 690.41 ft (210.437 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 22, 1933 nonrecording gage, Nov. 22, 1933 to May 1981 water-stage recorder at site 1.5 mi (2.4 km) upstream, at same datum.

REMARKS.--Records good. Some regulation by locks, and by many reservoirs above station. Combined capacity of reservoirs and lakes excluding that of Chautauqua Lake but including Lake Lynn and Deep Creek Reservoir and 15 smaller reservoirs, 2,773,000 acre-ft (3,420 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 32,810 ft^3/s (929.2 m^3/s), 22.85 in/yr (580 mm/yr), adjusted for storage May 1938-September 1975.

EXTREMES FOR PERIOD OF RECORD.--Maxmium discharge, 574,000 ft^3/s (16,300 m^3/s) Mar. 18, 1936, gage height, 34.75 ft (10.592 m), from floodmark in gage house; minimum, 1,800 ft^3/s (51.0 m^3/s) Sept. 4, 1957, gage height, 2.60 ft (0.792 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 203,000 ft^3/s (5,750 m^3/s) Feb. 21; minimum daily, 5,280 ft^3/s (150 m^3/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7860	26600	31900	19200	22200	113000	50100	86000	41800	32500	25300	12600
2	8130	23700	33500	20700	41600	112000	42800	84600	37200	28600	20100	16200
3	7840	21100	45700	18600	64500	102000	42300	77900	39200	22600	15300	24000
4	8530	20500	52000	14100	44300	92400	36800	66000	36600	19200	15700	36400
5	8540	19200	44800	13400	36800	83900	32200	43800	54000	17500	16300	51000
6	8950	17500	38600	12600	32700	85100	34300	57900	78800	22400	12600	41200
7	9110	17000	34900	12600	31300	79700	32700	47300	117000	21400	11200	33200
8	9370	16800	33400	14200	29000	68100	29400	37300	80100	19200	11800	29900
9	9690	15800	40700	12700	24400	59400	25600	30900	71500	16500	15900	27200
10	9340	18100	69700	14200	26400	55400	25400	25000	120000	15100	17400	29600
11	9190	22600	76800	15000	40700	53700	24600	23100	101000	11000	14100	24000
12	8570	21800	70200	13900	52500	35800	63900	32000	78800	9200	13200	21800
13	8330	21200	61500	14200	51900	32100	112000	35600	66000	9560	13800	17800
14	8930	19500	57800	15800	57600	32800	86300	36600	62500	12300	9920	15000
15	10000	17600	52200	18000	54700	30700	82900	43000	87900	10400	12700	17700
16	10700	16700	33600	17600	53800	33700	84400	59000	81300	10400	10200	22400
17	11100	15400	30700	15400	59200	38100	72500	55300	66900	10200	13200	25300
18	10300	25800	28600	13800	83900	37100	74000	50000	52700	8120	16600	24800
19	10100	35700	25400	13700	121000	35400	71300	49200	41900	8240	13500	21100
20	9130	28400	23400	15900	149000	28100	62900	65400	34000	9920	10700	17800
21	8830	26100	17200	16900	203000	26200	54600	63500	32800	19200	8600	15700
22	9080	22800	13600	17700	156000	23700	45200	52200	39800	20200	8720	16200
23	9570	19200	15600	17100	140000	22300	42600	43200	43700	16200	6300	14700
24	10600	22300	18900	17700	159000	23900	49000	31300	35500	15000	5280	14400
25	14700	48400	16100	17100	143000	27700	54300	22600	34100	10500	6600	11500
26	34000	54800	12600	18100	133000	27300	54600	19500	39800	16500	7500	12700
27	40900	48700	12600	28900	120000	32400	49500	20800	38400	15300	6000	9560
28	34700	43800	14000	35300	113000	47900	50200	20200	32700	18100	6600	11200
29	32800	42300	13900	31200	---	51700	79500	26100	24800	31100	7200	10500
30	30300	34800	17100	27600	---	46700	115000	28900	22200	35600	7100	8480
31	30200	---	18300	22800	---	48500	---	30900	---	30800	9800	---
TOTAL	439390	784200	1055300	556000	2244500	1586800	1680900	1365100	1693000	542840	369220	633940
MEAN	14170	26140	34040	17940	80160	51190	56030	44040	56430	17510	11910	21130
MAX	40900	54800	76800	35300	203000	113000	115000	86000	120000	35600	25300	51000
MIN	7840	15400	12600	12600	22200	22300	24600	19500	22200	8120	5280	8480

CAL YR 1980 TOTAL 12651760 MEAN 34570 MAX 138000 MIN 7560
WTR YR 1981 TOTAL 12951190 MEAN 35480 MAX 203000 MIN 5280

03101500 SHENANGO RIVER AT PYMATUNING DAM, PA

LOCATION.--Lat 41°29'53", long 80°27'37", Crawford County, Hydrologic Unit 05030102, on left bank 500 ft (150 m) downstream from Sugar Run, 900 ft (270 m) downstream from Pymatuning Dam, 1.5 mi (2.4 km) northwest of Jamestown, and at mile 84.9 (136.6 km).

DRAINAGE AREA.--167 mi^2 (433 km^2).

PERIOD OF RECORD.--June 1934 to current year.

REVISED RECORDS.--WSP 823: 1934-36. WSP 1083: 1936 (M), 1937, 1940 (M), 1941-45. WSP 1335: 1940.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 970.00 ft (295.656 m), National Geodetic Vertical datum, adjustment of 1907.

REMARKS.--Records good. Flow regulated by Pymatuning Reservoir since 1933 (station 03100500). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years, 201 ft^3/s (5.692 m^3/s), 16.35 in/yr (415 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,540 ft^3/s (43.6 m^3/s) Sept. 4, 1937, gage height, 9.2 ft (2.80 m); minimum, 0.1 ft^3/s (0.003 m^3/s) June 30 to July 3, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 898 ft^3/s (25.4 m^3/s) Apr. 29, gage height, 6.86 ft (2.091 m); minimum daily, 8.8 ft^3/s (0.25 m^3/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	43	157	425	145	592	110	700	66	85	12	120
2	46	41	176	425	192	588	107	688	64	85	11	139
3	46	41	300	425	164	596	105	685	62	87	11	139
4	46	41	525	425	151	596	105	685	62	87	11	130
5	46	43	596	345	145	596	142	682	62	103	10	28
6	46	41	592	255	142	596	115	700	61	97	9.8	97
7	46	41	600	255	142	592	107	691	61	87	25	127
8	46	41	608	255	142	592	105	682	61	87	61	130
9	46	41	643	255	142	415	105	584	260	87	56	130
10	46	41	620	240	139	164	105	335	398	85	43	125
11	44	41	612	230	148	164	105	340	612	85	65	125
12	44	40	620	230	117	164	110	356	604	85	24	125
13	44	40	636	230	112	164	95	340	604	85	14	125
14	43	40	632	225	99	160	148	215	620	85	12	127
15	40	41	628	225	95	160	99	168	612	62	26	127
16	40	41	628	215	105	164	87	151	604	38	38	125
17	40	40	624	196	225	160	91	139	600	46	17	125
18	40	41	624	196	200	160	89	133	600	52	11	125
19	41	41	624	196	356	157	83	133	596	52	9.8	125
20	40	41	620	196	250	157	82	130	592	53	9.1	127
21	40	41	620	196	455	157	80	130	592	47	9.1	125
22	40	41	620	196	460	160	79	130	612	13	9.1	125
23	40	41	616	164	592	168	91	130	620	10	8.8	120
24	40	49	616	139	545	172	335	130	620	9.4	21	122
25	49	59	616	139	560	142	612	130	616	9.1	40	122
26	62	64	616	145	600	110	600	101	450	17	93	122
27	56	110	616	172	596	136	596	66	255	13	117	122
28	65	139	612	160	596	115	624	72	255	65	117	122
29	62	157	612	151	---	110	485	67	160	49	117	120
30	50	154	545	148	---	117	560	73	87	18	117	120
31	46	---	465	142	---	117	---	73	---	13	120	---
TOTAL	1426	1675	17619	7196	7615	8441	6157	9639	11468	1796.5	1244.7	3641
MEAN	46.0	55.8	568	232	272	272	205	311	382	58.0	40.2	121
MAX	65	157	643	425	600	596	624	700	620	103	120	139
MIN	40	40	157	139	95	110	79	66	61	9.1	8.8	28

CAL YR 1980 TOTAL 80142.0 MEAN 219 MAX 682 MIN 14
WTR YR 1981 TOTAL 77918.2 MEAN 213 MAX 700 MIN 8.8

03102500 LITTLE SHENANGO RIVER AT GREENVILLE, PA

LOCATION.--Lat 41°25'19", long 80°22'35", Mercer County, Hydrologic Unit 05030102, on left bank 1,700 ft (520 m) downstream from Williamson Crossing Bridge, 1 mi (2 km) northeast of Greenville, and 2.0 mi (3.2 km) upstream from mouth. Water-quality sampling site at bridge 1,700 ft (520 m) upstream.

DRAINAGE AREA.--104 mi² (269 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1914, 1922-23, 1926-29. WSP 1335: 1923 (m).

GAGE.--Water-stage recorder. Datum of gage is 953.46 ft (290.615 m) National Geodetic Vertical Datum, adjustment of 1912. Prior to Nov. 4, 1915, nonrecording gage; Nov. 4, 1915, to Sept. 30, 1918, water-stage recorder; Nov. 7, 1919, to Aug. 31, 1923, and Nov. 19, 1925, to June 20, 1934, nonrecording gage at site 1 mi (2 km) downstream at datum 8.96 ft (2.731 m) lower.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--68 years, 141 ft³/s (3.993 m³/s), 18.41 in/yr (468 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,540 ft³/s (242 m³/s) Jan. 22, 1959, gage height, 14.30 ft (4.359 m), from rating curve extended above 3,200 ft³/s (91 m³/s) on basis of slope-area measurement at gage height 12.26 ft (3.737 m); minimum, 2.9 ft³/s (0.082 m³/s) July 31, 1934, gage height, 0.58 ft (0.177 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,720 ft³/s (77.0 m³/s) Feb. 20, gage height, 8.20 ft (2.499 m), no other peak above base of 1,500 ft³/s (42.5 m³/s); minimum, 13 ft³/s (0.37 m³/s) Oct. 10, 11, 12, gage height, 1.06 ft (0.323 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	68	80	64	125	144	169	486	97	29	57	26
2	20	58	185	52	240	115	131	282	82	29	44	1300
3	21	52	450	48	320	93	118	207	87	26	37	1040
4	24	56	146	45	250	75	112	167	131	26	33	1160
5	23	70	118	50	190	74	461	140	92	91	29	696
6	21	58	108	45	220	74	368	161	66	192	26	434
7	20	50	149	48	145	63	205	211	53	92	26	255
8	20	50	194	46	100	56	155	167	44	46	95	182
9	19	50	347	43	78	55	131	129	1000	35	142	178
10	18	54	290	41	65	86	122	107	809	29	88	118
11	17	58	201	40	87	136	102	108	473	25	79	88
12	19	50	142	39	120	131	146	190	263	23	140	74
13	22	44	157	38	155	155	171	153	205	23	80	64
14	22	44	140	38	200	159	780	117	217	31	56	81
15	20	52	108	38	200	122	644	230	254	32	67	110
16	20	47	124	37	180	133	275	200	207	23	165	79
17	20	45	120	36	200	122	250	160	205	21	110	61
18	23	44	134	36	250	99	288	138	144	20	69	53
19	39	43	96	36	950	96	203	110	104	19	50	47
20	30	42	80	37	2380	91	159	95	88	22	40	61
21	25	42	64	38	1510	92	129	82	75	98	33	66
22	23	45	54	38	777	95	108	73	76	81	29	53
23	21	51	60	39	564	134	133	64	84	45	26	48
24	20	58	56	50	899	194	238	58	63	31	25	43
25	44	205	55	74	458	171	286	54	57	25	23	39
26	226	130	54	105	259	131	226	52	50	41	22	37
27	163	86	54	150	186	340	169	54	42	74	21	35
28	159	78	53	125	157	280	151	80	37	47	22	33
29	180	78	56	105	---	190	1600	173	34	480	26	30
30	107	74	68	94	---	169	1100	108	31	182	25	34
31	82	---	84	78	---	211	---	142	---	87	23	---
TOTAL	1490	1882	4027	1753	11265	4086	9130	4498	5170	2025	1708	6525
MEAN	48.1	62.7	130	56.5	402	132	304	145	172	65.3	55.1	218
MAX	226	205	450	150	2380	340	1600	486	1000	480	165	1300
MIN	17	42	53	36	65	55	102	52	31	19	21	26
CFSM	.46	.60	1.25	.54	3.87	1.27	2.92	1.39	1.65	.63	.53	2.10
IN.	.53	.67	1.44	.63	4.03	1.46	3.27	1.61	1.85	.72	.61	2.33

CAL YR 1980 TOTAL 50131 MEAN 137 MAX 1840 MIN 17 CFSM 1.32 IN 17.93
WTR YR 1981 TOTAL 53559 MEAN 147 MAX 2380 MIN 17 CFSM 1.41 IN 19.16

BEST DOCUMENT AVAILABLE

03102500 LITTLE SHENANGO RIVER AT GREENVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT										
22...	1130	21	320	7.9	11.0	<.1	--	104	28	185
DEC										
04...	1015	169	220	7.0	1.0	--	--	60	33	128
JAN										
14...	1400	38	300	--	.0	--	--	--	19	122
MAR										
10...	1615	125	210	7.1	3.5	--	--	172	--	128
26...	1230	114	200	7.5	5.0	--	--	52	28	107
APR										
15...	1215	610	150	7.0	8.0	--	--	6	24	100
JUN										
03...	1200	87	280	7.0	15.5	.2	10	8	24	147
JUL										
29...	1820	370	155	7.4	20.0	--	--	40	27	125
AUG										
12...	1230	135	165	7.7	20.5	--	--	52	21	128

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT										
22...	.25	10.9	510	150	360	50	0	60	3	.18
DEC										
04...	.17	58.4	690	560	130	60	30	30	11	5.0
JAN										
14...	.17	12.7	400	330	70	90	0	110	2	.21
MAR										
10...	.17	43.2	--	--	--	--	--	--	1	.34
26...	.15	32.9	470	360	110	30	0	40	12	3.7
APR										
15...	.14	165	210	0	1400	20	0	90	74	122
JUN										
03...	.20	34.7	830	670	160	80	50	30	38	9.0
JUL										
29...	.17	125	3600	3400	220	180	110	70	101	101
AUG										
12...	.17	46.7	1300	1100	230	90	30	60	38	14

03102850 SHENANGO RIVER NEAR TRANSFER, PA

LOCATION.--Lat 41°21'13", long 80°23'53", Mercer County, Hydrologic Unit 05030102, on left bank at downstream side of covered wooden bridge, 200 ft (60 m) downstream from highway bridge, 0.6 mi (1.0 km) downstream from Big Run, 2.5 mi (4.0 km) northeast of Transfer, and at mile 71.8 (115.5 km).

DRAINAGE AREA.--337 mi^2 (873 km^2).

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR PA-71-1: 1966, 1967.

GAGE.--Water-stage recorder. Datum of gage is 913.94 ft (278.569 m) National Geodetic Vertical Datum of 1929, (Pennsylvania Department of Transportation bench mark).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1933 by Pymatuning Reservoir (station 03100500) 13 mi (21 km) upstream and by mills above station. Several observations of water temperature were made during the year. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--16 years, 462 ft^3/s (13.08 m^3/s), 18.62 in/yr (473 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft^3/s (147 m^3/s) Feb. 17, 1976, gage height, 10.09 ft (3.075 m); minimum, 33 ft^3/s (0.93 m^3/s) July 20-22, 1968, gage height, 1.71 ft (0.521 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,840 ft^3/s (137 m^3/s) Feb. 19, gage height, 9.37 ft (2.856 m); minimum, 67 ft^3/s (1.90 m^3/s) July 26, gage height, 2.16 ft (0.658 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	165	471	608	360	976	377	1420	208	130	126	208
2	91	148	528	584	945	928	310	1140	188	128	113	1780
3	91	138	666	568	865	888	285	1020	224	128	101	1520
4	96	154	776	550	650	848	290	968	295	127	93	2220
5	95	168	818	530	460	848	1170	936	208	208	87	1100
6	91	151	809	370	340	848	728	1190	168	355	80	776
7	90	140	872	370	300	824	433	1100	153	190	77	592
8	90	138	952	360	300	808	340	960	153	137	291	448
9	88	138	1300	360	285	768	310	912	2550	130	309	440
10	87	140	1170	350	275	377	290	544	1670	129	192	346
11	87	145	1010	350	380	412	270	576	1200	127	200	295
12	90	133	920	330	430	398	377	760	924	127	272	275
13	95	125	960	330	410	456	377	624	851	133	150	256
14	93	128	928	320	385	426	1170	504	1020	139	128	280
15	90	143	855	310	360	364	1060	792	1080	141	143	328
16	88	138	888	305	400	384	536	648	922	101	325	275
17	88	130	856	285	540	358	560	464	941	88	204	252
18	96	130	864	280	1000	322	608	352	795	94	137	236
19	103	130	848	280	1900	322	391	300	728	95	123	232
20	91	135	785	280	3560	310	322	275	700	107	109	248
21	78	138	785	280	2190	316	275	252	677	181	95	252
22	73	138	776	285	1420	340	248	236	706	170	85	236
23	71	135	784	275	1890	488	440	228	704	116	77	228
24	70	175	792	240	2190	576	872	216	661	88	72	216
25	142	346	780	236	1380	448	1190	208	652	73	73	212
26	466	245	776	295	1160	328	984	208	604	121	88	212
27	340	258	768	704	1040	904	904	162	275	161	156	208
28	364	352	760	664	1000	640	941	251	263	162	164	204
29	377	471	768	504	---	419	3000	346	236	632	169	200
30	240	407	784	335	---	448	1940	244	130	280	165	200
31	193	---	688	320	---	520	---	316	---	153	162	---
TOTAL	4245	5482	25737	11858	26415	17292	20998	18152	19886	4951	4566	14275
MEAN	137	183	830	383	943	558	700	586	663	160	147	476
MAX	466	471	1300	704	3560	976	3000	1420	2550	632	325	2220
MIN	70	125	471	236	275	310	248	162	130	73	72	200

CAL YR 1980 TOTAL 171707 MEAN 469 MAX 3820 MIN 64
WTR YR 1981 TOTAL 173857 MEAN 476 MAX 3560 MIN 70

03103500 SHENANGO RIVER AT SHARPSVILLE, PA

LOCATION.--Lat 41°15'58", long 80°28'22", Mercer County, Hydrologic Unit 05030102, on left bank 800 ft (240 m) upstream from double highway bridge at Sharpsville, 0.7 mi (1.1 km) downstream from Shenango River Dam, 1.8 mi (2.9 km) upstream from McCullough Run, and at mile 55.1 (88.7 km).

DRAINAGE AREA.--584 mi^2 (1,513 km^2).

PERIOD OF RECORD.--March 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 2107: 1970 Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 861.57 ft (262.607 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Pymatuning Reservoir (station 03100500) since 1933 and by Shenango River Lake 0.7 mi (1.1 km) upstream, since 1967. Several observations of water temperature were made during the year.

COOPERATION.--Four discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--43 years, 738 ft^3/s (20.90 m^3/s), 17.16 in/yr (436 mm/yr) adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft^3/s (445 m^3/s) Jan. 22, 1959, gage height, 15.97 ft (4.868 m); minimum daily, 43 ft^3/s (1.22 m^3/s) Sept. 3, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 19.3 ft (5.88 m), from Pymatuning survey profile map (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,840 ft^3/s (80.4 m^3/s) Mar. 9, gage height, 5.56 ft (1.695 m); minimum daily, 196 ft^3/s (5.55 m^3/s) Oct. 2-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	777	651	727	1060	2730	1060	1550	321	239	230	287
2	196	769	769	727	1210	2710	1050	1710	321	239	243	293
3	196	762	769	727	1440	2690	939	1870	321	239	257	565
4	196	755	777	727	1500	2660	682	1980	449	239	257	858
5	196	631	1040	727	1470	2630	548	2170	583	239	257	1020
6	196	401	1260	721	1140	2600	556	2160	580	239	258	1310
7	196	279	1260	720	900	2660	443	2150	576	239	258	1610
8	196	279	1410	717	591	2710	576	2130	576	239	258	1760
9	196	279	1500	709	440	2750	580	2110	579	239	261	1740
10	196	279	1650	706	440	2790	579	2090	929	239	261	1720
11	196	279	1770	699	449	2730	577	1920	1450	239	252	1420
12	196	279	1760	695	464	2670	579	1760	1900	237	245	846
13	196	279	1740	688	720	2620	581	1740	2050	237	256	570
14	196	279	1720	682	899	2560	584	1720	1570	235	262	570
15	196	279	1700	675	899	2500	720	1560	1130	235	271	570
16	370	279	1670	567	999	2440	868	1280	1590	235	270	570
17	556	279	1440	463	1030	2130	874	1000	1750	235	270	570
18	556	279	1060	463	998	1380	879	696	1740	236	270	514
19	550	279	940	463	1080	657	877	590	1730	239	270	451
20	550	274	932	459	591	524	1020	459	1710	237	270	451
21	543	274	932	457	350	524	1160	321	1690	235	270	451
22	543	274	836	457	690	524	1160	321	1430	235	270	451
23	550	274	713	457	999	526	1150	321	1090	233	270	451
24	543	274	720	457	1200	530	1150	321	970	235	270	451
25	543	279	720	457	1680	531	1160	321	750	235	270	451
26	543	279	720	457	2480	536	1160	321	828	235	270	449
27	543	279	720	578	2760	542	1160	321	828	235	270	446
28	550	283	720	821	2750	768	1160	321	716	234	279	376
29	665	283	727	1040	---	1060	1180	321	447	239	288	302
30	784	412	727	1090	---	1060	1330	323	261	229	288	302
31	777	---	727	1070	---	1060	---	321	---	228	288	---
TOTAL	12145	10907	34080	20403	31229	54802	26342	36178	30865	7328	8209	21825
MEAN	392	364	1099	658	1115	1768	878	1167	1029	236	265	728
MAX	784	777	1770	1090	2760	2790	1330	2170	2050	239	288	1760
MIN	196	274	651	457	350	524	443	321	261	228	230	287

CAL YR 1980 TOTAL 302182 MEAN 826 MAX 3250 MIN 155
WTR YR 1981 TOTAL 294313 MEAN 806 MAX 2790 MIN 196

03104760 HARTHEGIG RUN NEAR GREENFIELD, PA

LOCATION.--Lat 41°11'10", long 80°19'38", Mercer County, Hydrologic Unit 05030102, on right bank at upstream end of wingwall of culvert on Legislative Route 43010 overpass of U.S. Interstate Highway 80, 1.3 mi (2.1 km) upstream from mouth, 2 mi (3 km) southeast of Greenfield, and 6 mi (10 km) southwest of Mercer.

DRAINAGE AREA.--2.26 mi^2 (5.85 km^2).

PERIOD OF RECORD.--Annual maximum, water years 1965-68. October 1968 to March 1981 (discontinued). Prior to October 1968, published as Little Neshannock Creek tributary near Greenfield and as Hathagig Run near Greenfield, October 1968 to September 1969.

REVISED RECORDS.--WSP 2107: 1969-70 (P). WDR PA-74-1: 1971-72 (P).

GAGE.--Water-stage recorder, crest-stage gage, and culvert control. Datum of gage is 1,121.16 ft (341.730 m), Pennsylvania Department of Transportation datum. July 14, 1964, to Oct. 4, 1968, crest-stage gage at same site at datum 8.00 ft (2.438 m) lower.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years (1968-80), 3.22 ft^3/s (0.091 m^3/s), 19.35 in/yr (491 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 398 ft^3/s (11.3 m^3/s) Aug. 8, 1980, gage height, 3.51 ft (1.070 m), from rating curve extended above 60 ft^3/s (1.70 m^3/s) on basis of computation of peak flow through culvert at gage height, 3.06 ft (0.933 m); minimum discharge, 0.02 ft^3/s (0.001 m^3/s) Aug. 17, 19, 1971, July 16, 1977; minimum gage height, 1.02 ft (0.311 m) July 6, 14, 15, 17, Aug. 17, 19, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.83 m^3/s), and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 13	0945	117	3.31	2.39	0.728	Feb. 16	2115	*124	3.51	*2.43	0.741

Minimum discharge, 0.20 ft^3/s (0.006 m^3/s) many days in October, gage height, 1.05 ft (0.320 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.44	6.8	.52	1.5	2.7						
2	.20	.35	7.8	.41	8.0	2.1						
3	.44	.35	5.2	.36	56	1.6						
4	.35	.53	2.4	.43	46	1.6						
5	.28	.44	2.1	.39	14	1.9						
6	.20	.35	2.4	.36	2.1	1.6						
7	.20	.35	2.9	.33	.80	1.6						
8	.20	.44	5.6	.36	.68	.97						
9	.20	.44	11	.34	.62	1.2						
10	.20	.35	8.3	.31	.80	1.6						
11	.20	.35	3.4	.31	5.0	2.1						
12	.20	.28	2.4	.30	59	1.9						
13	.20	.28	3.0	.30	58	2.1						
14	.20	.35	2.1	.30	10	1.6						
15	.28	.44	3.0	.54	2.4	1.4						
16	.28	.35	1.2	.36	21	2.7						
17	.28	.35	1.1	.30	35	1.4						
18	1.2	.35	.96	.30	26	1.6						
19	.44	.44	.86	.29	42	.97						
20	.28	.44	.76	.29	34	.80						
21	.28	.53	.66	.30	12	1.2						
22	.28	.53	.60	.31	6.8	3.7						
23	.20	.53	.54	.32	24	6.4						
24	.20	4.8	.48	.33	10	4.8						
25	5.6	4.8	.60	.47	6.0	2.4						
26	3.7	1.6	.50	.76	4.1	4.1						
27	1.2	1.4	.36	1.1	3.0	22						
28	1.6	5.2	.41	.70	3.4	4.4						
29	1.2	4.8	.47	.43	---	2.7						
30	.64	4.4	.68	.60	---	4.4						
31	.53	---	.68	.94	---	3.4						
TOTAL	21.46	36.26	79.26	13.36	492.20	92.94						
MEAN	.69	1.21	2.56	.43	17.6	3.00						
MAX	5.6	5.2	11	1.1	59	22						
MIN	.20	.28	.36	.29	.62	.80						
CFSM	.31	.54	1.13	.19	7.79	1.33						
IN.	.35	.60	1.30	.22	8.10	1.53						

CAL YR 1980 TOTAL 1142.31 MEAN 3.12 MAX 66 MIN .11 CFSM 1.38 IN 18.79

03105500 BEAVER RIVER AT WAMPUM, PA

LOCATION.--Lat 40°53'19", long 80°20'14", Lawrence County, Hydrologic Unit 05030104, on right bank at downstream side of bridge on State Highway 288 at Wampum, 2.9 mi (4.7 km) upstream from Connoquenessing Creek, and at mile 15.4 (24.8 km).

DRAINAGE AREA.--2,235 mi^2 (5,789 km^2).

PERIOD OF RECORD.--July 1914 to September 1918, August 1932 to current year. Monthly discharge only for some periods, published in WSP 1305. Published as "at Newport" 1914-18.

REVISED RECORDS.--WSP 728: Drainage area. WSP 1385: 1933-40, 1946, 1951-52. WSP 1725: 1960 (adjusted runoff).

GAGE.--Water-stage recorder. Datum of gage is 736.24 ft (224.406 m) National Geodetic Vertical Datum of 1929, (Penn Central Railroad bench mark). Prior to Sept. 20, 1914, nonrecording gage at site 500 ft (150 m) downstream at datum 0.76 ft (0.232 m) lower. Oct. 1, 1914, to Sept. 30, 1918, nonrecording gage at site 1 mi (2 km) upstream at datum 0.84 ft (0.256 m) higher. Aug. 26, 1932, to Nov. 16, 1938, nonrecording gage at present site and datum. Since 1932, auxiliary gage 10 mi (16 km) downstream at station at Beaver Falls which is used during periods of backwater from Connoquenessing Creek.

REMARKS.--Records good. Flow regulated since 1942 by Berlin Lake, since 1916 by Milton Reservoir, since 1966 by Michael J. Kirwan Reservoir, since 1943 by Mosquito Creek Lake, since 1929 by Meander Creek Reservoir, since 1933 by Pymatuning Reservoir, and since 1967 by Shenango River Lake 40 mi (64 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years (1914-18, 1932-81), 2,444 ft^3/s (69.21 m^3/s), 14.85 in/yr (377 mm/yr), adjusted for storage from 1932-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,100 ft^3/s (1,420 m^3/s) May 28, 1946, from slope-rating curve extended above 28,000 ft^3/s (790 m^3/s) on basis of contracted-opening measurement at gage height 21.44 ft (6.535 m); maximum gage height, 24.86 ft (7.577 m) Jan. 22, 1959 (backwater from Connoquenessing Creek); minimum discharge observed, 74 ft^3/s (2.10 m^3/s) July 30, 1933, gage height, 1.70 ft (0.518 m); minimum daily, 97 ft^3/s (2.75 m^3/s) July 22, Aug. 23, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1912, 29.9 ft (9.114 m) Mar. 26, 1913, from floodmark, discharge, about 87,000 ft^3/s (2,460 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,400 ft^3/s (663 m^3/s) Feb. 20, gage height, 14.63 ft (4.459 m); minimum daily, 500 ft^3/s (14.2 m^3/s) Aug. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	1650	2280	1660	2310	6360	2870	7340	1440	1610	780	1030
2	960	1550	2560	1630	5180	6120	2530	5470	1370	1230	700	3460
3	930	1500	2840	1580	4770	5890	2300	5020	1720	1120	640	3720
4	990	1600	2510	1480	3980	5670	2020	4730	3170	1080	650	5810
5	960	1750	2270	1420	3200	5590	5380	4710	2270	1180	680	3940
6	920	1550	2530	1450	2760	5370	4770	5340	1930	1250	660	3110
7	910	1280	2650	1470	2180	4950	3240	5840	1670	1270	640	2800
8	910	1190	2890	1430	2020	4550	2340	5260	1520	1210	1140	2940
9	900	1190	4010	1400	1510	4440	2140	4450	3440	1060	880	2950
10	880	1150	4780	1390	1430	4430	1940	4190	4210	960	740	2740
11	900	1120	4250	1350	3860	4210	1870	4440	4130	900	680	2610
12	860	1100	3680	1300	4070	4150	5250	6220	3930	900	640	2100
13	860	1080	3490	1320	3240	4110	5560	5720	3910	1040	600	1540
14	880	1060	3300	1340	3070	4000	8300	4520	5000	1060	580	1390
15	890	1100	3070	1340	2750	3760	8480	6210	4810	950	600	1390
16	910	1090	3040	1340	2750	3760	6170	5930	4510	920	1260	1340
17	1170	1070	2920	1170	7500	3660	5640	4270	5480	870	1050	1430
18	1670	1110	2440	1090	10400	3100	6300	3090	4750	850	900	1360
19	1690	1130	2190	1080	13400	2200	5120	2390	4460	810	780	1330
20	1470	1120	1880	1100	20000	1760	4240	2150	4270	1420	690	1220
21	1400	1130	1780	1110	18900	1720	3990	1740	4220	2300	580	1200
22	1300	1130	1760	1140	8970	1760	4330	1500	5220	1510	540	1270
23	1250	1120	1600	1160	8250	2040	5130	1380	4320	1140	530	1300
24	1200	1310	1540	1170	10600	2210	5860	1180	3290	840	520	1330
25	2070	1920	1470	1180	7530	2030	5620	1110	3420	740	520	1330
26	3100	1740	1420	1430	6430	1820	4650	1090	3790	740	510	1330
27	2190	1570	1460	3140	6540	5050	4200	1140	2820	840	500	1320
28	2000	2000	1420	3460	6530	4970	3970	1270	2360	840	500	1290
29	1850	2440	1490	3210	---	3960	8360	2190	1790	1800	1050	1190
30	1800	2250	1700	2710	---	3220	9820	1940	1560	1290	1020	1120
31	1700	---	1670	2340	---	3200	---	1740	---	1560	1040	---
TOTAL	40610	42000	76890	49390	174130	120060	142390	113570	100780	35290	22600	60890
MEAN	1310	1400	2480	1593	6219	3873	4746	3664	3359	1138	729	2030
MAX	3100	2440	4780	3460	20000	6360	9820	7340	5480	2300	1260	5810
MIN	860	1060	1420	1080	1430	1720	1870	1090	1370	740	500	1030

CAL YR 1980 TOTAL 1045438 MEAN 2856 MAX 12500 MIN 827
WTR YR 1981 TOTAL 978600 MEAN 2681 MAX 20000 MIN 500

03106000 CONNOQUENESSING CREEK NEAR ZELIENOPLE, PA

LOCATION.--Lat 40°49'01", long 80°14'33", Beaver County, Hydrologic Unit 05030105, on right bank at downstream side of highway bridge at Hazen, 0.3 mi (0.5 km) upstream from Brush Creek, 4 mi (6 km) southeast of Ellwood City, and 6.0 mi (10 km) west of Zelienople.

DRAINAGE AREA.--356 mi² (922 km²).

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1305. June 1915 to September 1919 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania. Published as "at Hazen" 1915-16, 1929-63, and as "near Hazen" 1917-28.

REVISED RECORDS.--WSP 743: Drainage area. WSP 893: 1937-38, 1939 (M). WSP 1305: 1922-26, 1928. WSP 1335: 1920-21, 1924 (M). WSP 1385: 1952.

GAGE.--Water-stage recorder. Datum of gage is 852.31 ft (259.784 m) National Geodetic Vertical Datum, adjustment of 1912. Prior to June 23, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation by mills above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--62 years, 467 ft³/s (13.23 m³/s), 17.81 in/yr (452 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,000 ft³/s (651 m³/s) June 29, 1924, gage height, 16.66 ft (5.078 m), from rating curve extended above 18,000 ft³/s (510 m³/s); minimum observed, 6.0 ft³/s (0.17 m³/s) July 21-23, 1936; minimum gage height, 0.76 ft (0.232 m) Aug. 8, Sept. 16-17, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 20	2000	6570	186	9.68	2.950	Apr. 14	1430	*6730	191	*9.82	2.993

Minimum discharge, 20 ft³/s (0.57 m³/s) Aug. 28, gage height, 1.02 ft (0.311 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	143	420	190	320	695	472	1380	236	309	82	120
2	84	131	411	170	500	561	440	1030	212	257	73	122
3	84	121	452	150	1590	479	383	808	320	209	67	96
4	84	116	378	140	1120	401	357	668	794	182	66	209
5	80	117	339	140	800	415	638	562	435	161	66	348
6	76	110	314	135	560	436	573	550	348	316	59	179
7	73	104	299	135	390	374	441	550	320	191	54	110
8	71	112	282	130	300	326	391	430	253	134	51	170
9	71	150	401	130	260	303	363	360	1820	107	51	405
10	69	148	573	130	250	332	342	328	1210	96	48	173
11	70	135	502	125	320	363	315	344	689	84	43	115
12	104	114	441	125	420	370	2920	365	445	75	41	92
13	78	104	420	120	520	348	2980	320	328	78	38	94
14	70	101	361	120	650	336	5420	271	420	128	37	80
15	64	103	280	120	620	312	3440	260	375	107	40	71
16	62	101	260	120	580	328	1870	288	309	76	49	80
17	58	97	240	120	2040	332	1400	236	934	69	60	84
18	65	104	225	115	3100	274	1170	200	502	62	52	96
19	97	117	210	115	2870	268	829	182	370	57	41	75
20	80	114	195	115	5020	254	682	170	295	149	35	67
21	60	104	180	120	4390	260	562	158	264	264	28	60
22	56	110	170	120	2290	268	5430	143	420	152	27	59
23	52	114	160	125	2280	292	3480	131	484	96	24	57
24	49	156	160	130	2990	296	1910	120	288	76	24	56
25	133	525	160	180	1820	278	1430	112	668	67	24	49
26	715	392	155	240	1220	260	550	107	1730	64	23	46
27	268	326	155	380	903	430	514	155	745	122	24	44
28	229	411	155	290	764	467	466	194	502	112	21	43
29	255	519	170	230	---	415	1520	340	375	264	107	44
30	187	452	200	170	---	448	1940	236	313	167	84	44
31	159	---	220	220	---	591	---	340	---	105	137	---
TOTAL	3688	5451	8888	4850	38887	11512	43228	11338	16404	4336	1576	3288
MEAN	119	182	287	156	1389	371	1441	366	547	140	50.8	110
MAX	715	525	573	380	5020	695	5430	1380	1820	316	137	405
MIN	49	97	155	115	250	254	315	107	212	57	21	43
CFSM	.33	.51	.81	.44	3.90	1.04	4.05	1.03	1.54	.39	.14	.31
IN.	.39	.57	.93	.51	4.06	1.20	4.52	1.18	1.71	.45	.16	.34

CAL YR 1980 TOTAL 186391 MEAN 509 MAX 3750 MIN 49 CFSM 1.43 IN 19.48
WTR YR 1981 TOTAL 153446 MEAN 420 MAX 5430 MIN 21 CFSM 1.18 IN 16.03

03106140 WOLF CREEK NEAR SLIPPERY ROCK, PA

LOCATION.--Lat 41°06'48", long 80°04'28", Mercer County, Hydrologic Unit 05030105, on left bank 150 ft (45.7 m) upstream from bridge at Courtneys Mills, 3.5 mi (5.6 km) northwest of Slippery Rock and 9.1 mi (14.6 km) upstream from mouth.

DRAINAGE AREA.--86.6 mi^2 (224 km^2).

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,200 ft (366 m) from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 133 ft^3/s (3.767 m^3/s), 20.86 in/yr (530 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,330 ft^3/s (66.0 m^3/s) Dec. 15, 1977, gage height, 4.70 ft (1.433 m); minimum, 11 ft^3/s (0.312 m^3/s) June 5, 1977, minimum gage height, 1.40 ft (0.427 m) Sept. 12, 13, 1977, Sept. 11, 12, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft^3/s (36.8 m^3/s) revised and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 20	1330	*1950	55.2	*4.28	1.305	Apr. 30	0230	1390	39.6	3.66	1.116
Feb. 24	1000	1320	37.4	3.57	1.088						

Minimum discharge, 20 ft^3/s (0.57 m^3/s) Aug. 27, gage height, 1.49 ft (0.454 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TC SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	58	185	60	110	185	149	412	55	98	43	33
2	32	50	316	50	190	149	113	212	57	77	37	251
3	32	45	339	34	300	127	95	149	117	57	35	327
4	32	53	176	48	260	107	92	120	223	77	39	428
5	30	60	138	45	210	110	444	104	117	92	37	167
6	29	53	126	42	170	113	327	138	71	388	30	95
7	30	45	146	40	120	98	154	154	55	158	29	65
8	29	50	167	41	90	92	117	110	47	68	77	89
9	29	53	310	39	70	92	104	95	234	53	53	134
10	26	53	357	37	80	104	98	80	263	47	39	71
11	30	53	232	35	95	120	98	89	117	39	39	55
12	29	45	154	35	120	120	269	124	68	37	39	47
13	29	41	146	35	160	138	287	104	59	35	33	41
14	29	41	129	34	210	117	357	83	167	71	30	39
15	30	53	190	34	185	95	436	98	172	47	35	35
16	30	45	110	33	165	110	190	107	92	33	51	32
17	30	45	96	33	195	95	299	95	138	32	45	37
18	56	48	83	32	240	80	444	71	86	29	33	35
19	74	53	70	32	1190	77	206	63	61	29	29	33
20	41	53	62	32	1750	71	149	57	51	127	26	33
21	35	50	56	33	1350	77	120	51	51	508	26	35
22	32	53	52	34	588	86	104	47	71	312	23	33
23	29	58	48	35	660	138	145	43	74	89	23	30
24	26	126	52	36	1060	154	269	41	53	59	22	30
25	154	238	48	54	484	120	263	39	138	49	22	27
26	520	142	48	78	293	98	172	39	305	51	22	29
27	249	99	48	140	206	420	131	57	120	61	21	27
28	158	118	47	95	185	312	134	145	63	53	22	27
29	146	150	52	70	---	158	836	89	51	120	29	26
30	89	138	66	50	---	181	1090	68	49	80	29	27
31	68	---	75	75	---	257	---	77	---	55	33	---
TOTAL	2183	2169	4124	1471	10736	4201	7692	3161	3225	3031	1051	2338
MEAN	70.4	72.3	133	47.5	383	136	256	102	108	97.8	33.9	77.9
MAX	520	238	357	140	1750	420	1090	412	305	508	77	428
MIN	26	41	47	32	70	71	92	39	47	29	21	26
CFSM	.81	.84	1.54	.55	4.42	1.57	2.96	1.18	1.25	1.13	.39	.90
IN.	.94	.93	1.77	.63	4.61	1.80	3.30	1.36	1.39	1.30	.45	1.00

CAL YR 1980 TOTAL 52861 MEAN 144 MAX 1110 MIN 22 CFSM 1.66 IN 22.71
WTR YR 1981 TOTAL 45382 MEAN 124 MAX 1750 MIN 21 CFSM 1.43 IN 19.49

03106300 MUDDY CREEK NEAR PORTERSVILLE, PA

LOCATION.--Lat 40°57'47", long 80°07'31", Butler County, Hydrologic Unit 05030105, on left bank 1,000 ft (300 m) downstream from Lake Arthur Dam, 0.2 mi (0.3 km) north of U. S. Highway 422, and 3 mi (5 km) north of Portersville.

DRAINAGE AREA.--51.2 mi^2 (132.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1963 to current year.

REVISED RECORDS.--WDR PA-79-3: 1978.

GAGE.--Water-stage recorder. Altitude of gage is 1,180 ft (360 m), from topographic map. Prior to Apr. 8, 1963, nonrecording gage at site 2,000 ft (600 m) downstream at different datum. Apr. 8 to May 1, 1963, nonrecording gage and May 2, 1963 to Sept. 30, 1980, water stage recorder at site 1,000 ft (300 m) downstream at different datum.

REMARKS.--Records fair. Some regulation from October 1966 to May 1969 and completely regulated thereafter by Lake Arthur (station 03106280) 1,000 ft (300 m) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years, 75.3 ft^3/s (2.132 m^3/s), 19.97 in/yr (507 mm/yr) adjusted for storage since May 1969.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,640 ft^3/s (46.4 m^3/s) Mar. 10, 1964, gage height, 8.18 ft (2.493 m), from rating curve extended above 820 ft^3/s (23 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.4 ft^3/s (0.011 m^3/s) Sept. 17, 1966; minimum gage height, 1.09 ft (0.332 m) Sept. 26, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 522 ft^3/s (14.8 m^3/s) June 24, gage height, 5.66 ft (1.725 m); minimum daily, 2.1 ft^3/s (0.059 m^3/s) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	20	40	47	37	252	75	205	40	54	10	3.0
2	26	20	40	49	74	219	72	196	37	49	7.8	4.3
3	24	19	43	48	91	193	72	183	43	42	7.3	5.4
4	21	23	47	46	97	173	70	167	49	38	6.1	6.6
5	20	22	44	33	96	157	89	147	52	36	4.3	196
6	19	21	43	39	96	142	91	137	58	37	4.7	140
7	18	20	43	47	90	127	94	124	56	33	5.0	5.2
8	17	21	45	43	88	114	89	115	53	29	4.5	4.1
9	18	21	48	36	84	103	83	97	67	26	4.7	3.4
10	18	22	49	32	81	95	80	88	75	22	4.7	3.3
11	16	21	50	32	95	90	75	81	72	20	3.6	4.1
12	15	21	57	32	109	86	135	76	66	19	3.6	3.4
13	18	21	44	33	108	80	165	70	62	18	3.8	3.3
14	17	20	41	40	99	75	209	65	76	17	3.9	3.3
15	17	20	43	27	96	71	231	62	79	15	3.6	3.8
16	18	19	48	29	96	65	231	57	77	15	4.5	3.6
17	12	23	48	29	142	62	232	53	81	13	4.1	2.8
18	18	23	48	29	194	60	223	49	76	12	4.3	2.2
19	16	23	48	28	267	55	209	42	67	12	4.3	2.5
20	19	23	47	24	420	53	187	38	59	13	4.1	3.0
21	18	20	46	23	484	55	170	34	55	15	3.8	3.6
22	18	21	46	23	472	54	153	31	60	15	3.6	3.1
23	20	22	46	22	476	51	148	28	64	15	3.0	3.3
24	18	30	46	22	490	50	142	27	176	14	2.8	13
25	17	35	45	22	446	48	138	25	51	12	3.1	5.4
26	17	38	46	23	388	48	129	25	63	12	2.8	5.4
27	19	43	43	28	330	61	122	33	63	13	3.3	6.1
28	21	39	47	31	285	67	116	35	61	14	3.0	3.9
29	20	40	45	34	---	68	161	33	54	13	2.6	2.1
30	19	42	48	34	---	73	204	35	51	12	2.2	2.2
31	17	---	47	33	---	78	---	41	---	11	2.4	---
TOTAL	579	753	1421	1018	5831	2925	4195	2399	1943	666	131.5	451.4
MEAN	18.7	25.1	45.8	32.8	208	94.4	140	77.4	64.8	21.5	4.24	15.0
MAX	28	43	57	49	490	252	232	205	176	54	10	196
MIN	12	19	40	22	37	48	70	25	37	11	2.2	2.1

CAL YR 1980 TOTAL 28722.7 MEAN 78.5 MAX 295 MIN 4.4
WTR YR 1981 TOTAL 22312.9 MEAN 61.1 MAX 490 MIN 2.1

BEST DOCUMENT AVAILABLE

03106300 MUDDY CREEK NEAR PORTERSVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
MAR 23...	0945	26	200	7.1	4.0	26	57	123	.17
AUG 14...	0930	3.9	250	7.4	19.5	62	33	167	.23

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAR 23...	8.6	370	350	20	1300	100	1200	4	.28
AUG 14...	1.7	280	210	70	9800	400	9400	22	.23

03106500 SLIPPERY ROCK CREEK AT WURTEMBURG, PA

LOCATION.--Lat 40°53'02", long 80°14'02", Lawrence County, Hydrologic Unit 05030105, on left bank at downstream side of highway bridge at Camp Allegheny, 2 mi (3 km) north of Wurtemburg, and 2.8 mi (4.5 km) upstream from mouth.

DRAINAGE AREA.--398 mi^2 (1,031 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1911 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1914-18, 1920-22, 1923-24 (M), 1925-28, 1930. WSP 1385: 1932, 1935, 1936 (M), 1937-39. WSP 1625: 1955.

GAGE.--Water-stage recorder. Datum of gage is 832.06 ft (253.612 m) National Geodetic Vertical Datum of 1929. Jan. 1, 1912, to Sept. 30, 1922, nonrecording gage at site 1.5 mi (2.4 km) downstream at datum 13.77 ft (4.197 m) lower and Oct. 1, 1922, to Sept. 30, 1940, nonrecording gage at site 2 mi (3 km) downstream at datum 18.92 ft (5.767 m) lower.

REMARKS.--Records good except those for winter periods and period of no gage-height record Feb. 18 - Mar. 10, which are fair. Some regulation since May 1969 by Lake Arthur (station 03106280) 13 mi (21 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--70 years, 568 ft^3/s (16.09 m^3/s), 19.38 in/yr (490 mm/yr), adjusted for storage since May 1969.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft^3/s (538 m^3/s) Jan. 25, 1937, gage height, 12.05 ft (3.673 m), from floodmark, site and datum then in use, from rating curve extended above 14,000 ft^3/s (400 m^3/s); minimum observed, 16 ft^3/s (0.45 m^3/s) Sept. 13, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft^3/s (99.1 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 20	Unknown	*a9600	272	* Unknown		Apr. 29	2230	3730	106	5.24	1.597

Minimum daily discharge, 65 ft^3/s (1.84 m^3/s) Aug. 27, 28.

a-Based on hydrologic study.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	307	646	260	610	840	796	1910	345	307	127	127
2	135	273	827	225	1300	740	640	1360	273	360	113	360
3	135	249	1050	190	2500	660	560	1070	390	269	107	604
4	135	253	796	190	1240	590	530	897	652	241	107	814
5	130	273	622	185	1040	630	1480	772	550	257	102	736
6	125	253	555	185	855	660	1340	784	400	400	98	545
7	120	227	565	180	700	600	862	814	312	622	94	213
8	120	227	664	180	560	560	688	622	257	335	109	196
9	115	241	1050	180	470	530	616	530	1020	227	145	321
10	110	253	1200	175	380	560	570	450	1010	185	118	217
11	125	234	946	175	450	586	540	490	580	160	100	138
12	290	210	736	170	550	586	1870	540	420	151	100	125
13	250	196	670	170	660	565	1440	480	345	151	96	109
14	190	192	610	165	820	545	2140	415	[illegible]	154	92	105
15	160	199	470	165	760	485	1950	370	676	199	127	98
16	155	206	460	160	700	485	1360	430	460	154	140	90
17	150	196	390	160	2270	480	1250	400	504	137	137	116
18	196	203	350	160	3850	410	1100	370	485	130	116	107
19	303	210	320	155	4200	390	880	345	340	125	100	116
20	224	213	290	160	6500	380	820	321	277	185	92	107
21	163	210	270	170	5400	390	960	298	261	790	84	100
22	142	210	240	175	4100	410	1100	273	510	688	76	96
23	135	220	220	180	3400	540	1300	257	540	303	73	94
24	125	345	210	190	4200	604	1500	245	445	169	69	92
25	510	760	210	280	2900	525	1400	238	410	145	67	86
26	1390	616	205	420	1900	455	1100	234	1090	140	67	82
27	1040	475	205	600	1300	1180	940	321	706	151	65	80
28	706	515	200	460	960	1200	820	495	425	151	65	78
29	598	628	230	340	---	778	3340	450	316	210	172	76
30	460	586	260	250	---	802	3210	370	273	257	107	76
31	365	---	300	520	---	1040	---	450	---	154	111	---
TOTAL	8942	9180	15767	7175	54575	19206	37102	17001	14922	7907	3176	6104
MEAN	288	306	509	231	1949	620	1237	548	497	255	102	203
MAX	1390	760	1200	600	6500	1200	3340	1910	1090	790	172	814
MIN	110	192	200	155	380	380	530	234	257	125	65	76
†	+2.6	+5.9	-3.1	-2.6	+50.8	-32.4	+25.4	-35.0	+4.4	-18.2	-10.1	-6.6
MEAN‡	291	312	506	228	2000	588	1262	513	501	237	91.9	196
CFSM‡	.73	.78	1.27	.57	5.03	1.48	3.17	1.29	1.26	.60	.23	.49
IN.‡	.84	.87	1.46	.66	5.24	1.71	3.54	1.49	1.41	.69	.27	.55

CAL YR 1980 TOTAL 247173 MEAN 675 MAX 4540 MIN 110 ADJ -0.8 MEAN‡ 674 CFSM‡ 1.69 IN.‡ 23.06

WTR YR 1981 TOTAL 201057 MEAN 551 MAX 6500 MIN 65 ADJ -2.1 MEAN‡ 549 CFSM‡ 1.38 IN.‡ 18.73

† Change in contents, equivalent in cubic feet per second, in Lake Arthur.

‡ Adjusted for change in contents.

03106500 SLIPPERY ROCK CREEK AT WURTEMBURG, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966, 1968, 1970-73, 1976-78, January 1980 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
OCT 23...	1115	139	437	7.7	7.5	80	99	268	.36
DEC 09...	1555	930	295	7.5	6.0	42	67	166	.23
MAR 11...	1400	630	235	7.1	3.5	146	--	204	.28
APR 17...	1000	1230	250	7.1	10.0	46	66	170	.23
JUN 04...	1000	681	420	7.1	15.5	48	79	232	.32
AUG 04...	1315	149	365	8.5	20.5	48	88	245	.33

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT 23...	101	240	200	40	60	10	50	1	.38
DEC 09...	417	1300	1300	40	410	160	250	28	70
MAR 11...	347	--	--	--	--	--	--	1	1.7
APR 17...	565	870	830	40	420	110	310	20	66
JUN 04...	427	630	600	30	250	140	110	11	20
AUG 04...	98.6	530	510	20	130	100	30	16	6.4

03107500 BEAVER RIVER AT BEAVER FALLS, PA
(National stream quality accounting network)

LOCATION.--Lat 40°45'48", long 80°18'55", Beaver County, Hydrologic Unit 05030104, on left bank at Beaver Falls, 200 ft (60 m) upstream from pumping plant of Beaver Falls Municipal Authority, 7.0 mi (11.3 km) downstream from Connoquenessing Creek, and at mile 5.5 (8.8 km). Water-quality sampling site 0.25 mi (0.4 km) upstream.

DRAINAGE AREA.--3,106 mi^2 (8,045 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1935 to current year (fragmentary records only prior to October 1956). Gage-height records collected at same site since 1908 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1725: 1960 (adjusted runoff).

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 727.48 ft (221.736 m) National Geodetic Vertical Datum of 1929, (Corps of Engineers bench mark). Prior to Dec. 3, 1941, nonrecording gage at site 200 ft (60 m) downstream at same datum.

REMARKS.--Records good above 2,000 ft^3/s (57 m^3/s) and fair below except those below 1,200 ft^3/s (34 m^3/s) which are poor. Pumpage from gage pool, averaging 3.4 ft^3/s (0.096 m^3/s) in 1935 and 6.0 ft^3/s (0.17 m^3/s) at present, for local water supply returns to river 2 mi (3 km) downstream; information furnished by Beaver Falls Municipal Authority. Flow regulated, since 1942 by Berlin Lake, since 1916 by Milton Reservoir, since 1966 by Michael J. Kirwan Reservoir, since 1943 by Mosquito Creek Lake, since 1929 by Meander Creek Reservoir, since 1933 by Pymatuning Reservoir, since 1967 by Shenango River Lake, all over 50 mi (80 km) upstream, and since 1969 by Lake Arthur 29 mi (47 km) upstream. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--25 years, (1956-81), 3,647 ft^3/s (103.3 m^3/s), 15.95 in/yr (405 mm/yr), adjusted for storage 1957-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,900 ft^3/s (1,980 m^3/s) Jan. 22, 1959, gage height, 14.42 ft (4.395 m); minimum not determined.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 27, 1913, reached a stage of 17.4 ft (5.30 m) discharge, 103,000 ft^3/s (2,920 m^3/s), from rating curve extended above 60,000 ft^3/s (1,700 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,400 ft^3/s (918 m^3/s) Feb. 21, gage height, 10.32 ft (3.146 m); minimum daily, 720 ft^3/s (20.4 m^3/s) Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1480	2430	3600	2520	3270	8900	4500	11600	2350	2430	1050	1280
2	1280	2330	4020	2380	7740	8220	3990	8460	2100	2080	950	3660
3	1230	2230	4500	2250	8300	7700	3630	7420	2610	1800	950	4470
4	1280	2280	3990	2030	6380	7260	3270	6740	5060	1650	1000	6700
5	1230	2330	3520	2080	4940	7180	7700	6460	3730	1800	975	5220
6	1180	2080	3630	2100	4140	6980	7340	6980	3120	2150	925	4020
7	1150	1800	3750	2030	3510	6580	5100	7620	2700	2400	900	3300
8	1130	1700	4080	1980	3270	6020	3870	6860	2300	2000	1150	3330
9	1130	1750	5340	1950	2640	5780	3540	5820	8700	1680	1150	3810
10	1080	1750	6860	1880	2350	5780	3240	5420	8850	1480	1080	3330
11	1150	1680	6180	1830	5140	5500	3090	5660	6340	1330	1030	3030
12	1150	1580	5220	1880	7260	5420	10900	7500	5260	1280	950	2430
13	1150	1530	4820	1900	5380	5340	11500	7060	4940	1430	880	1830
14	1130	1500	4500	1900	4780	5180	17100	5700	6620	1530	925	1600
15	1130	1550	4110	1900	4320	4820	15500	7180	6500	1450	1030	1530
16	1150	1550	4080	1900	4200	4820	10700	7260	5700	1330	1380	1530
17	1380	1530	3990	1730	11000	4740	9100	5540	7340	1250	1230	1630
18	2000	1580	3480	1600	16700	4110	10200	4140	6220	1200	1080	1570
19	2250	1630	3180	1600	19200	3270	7980	3300	5540	1150	950	1520
20	1980	1630	2550	1630	27200	2730	6740	2970	5140	1650	860	1360
21	1780	1630	2380	1650	28000	2670	5980	2550	4980	3630	840	1320
22	1680	1630	2400	1700	16200	2730	6020	2200	6340	2610	800	1380
23	1630	1650	2280	1730	13600	3150	6860	2050	5860	1730	760	1400
24	1550	1980	2250	1730	18400	3420	8300	1800	4200	1280	740	1430
25	2430	3420	2150	1730	13500	3180	8060	1700	4470	1130	740	1420
26	5540	3060	2100	1980	10500	2850	6740	1650	7380	1130	740	1410
27	3930	2640	2130	4380	9600	6580	6020	2030	4620	1350	720	1400
28	3300	3180	2080	5180	9200	7220	5620	3120	3600	1350	740	1350
29	3150	3870	2180	4620	---	5660	11900	3390	2790	2250	1080	1250
30	2820	3630	2490	3840	---	4740	15800	2880	2330	1850	1180	1130
31	2610	---	2580	3300	---	5260	---	2880	---	1350	1130	---
TOTAL	57060	63130	110420	70910	270720	163790	230290	155940	147690	52730	29915	70640
MEAN	1841	2104	3562	2287	9669	5284	7676	5030	4923	1701	965	2355
MAX	5540	3870	6860	5180	28000	8900	17100	11600	8850	3630	1380	6700
MIN	1080	1500	2080	1600	2350	2670	3090	1650	2100	1130	720	1130

CAL YR 1980 TOTAL 1493580 MEAN 4081 MAX 18800 MIN 1080
WTR YR 1981 TOTAL 1423235 MEAN 3899 MAX 28000 MIN 720

03107500 BEAVER RIVER AT BEAVER FALLS, PA--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIODS OF RECORD.--Water years 1966, 1973, November 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN DIS-SOLVED (MG/L AS N)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 06...	0915	2150	430	7.5	10.0	.80	8.4	1.5	K4400	230
JAN 14...	0930	1900	480	7.8	1.5	3.4	11.8	2.8	K8100	820
MAR 16...	1400	4820	340	7.6	6.0	1.7	11.4	2.1	4300	320
MAY 20...	1400	2940	430	7.4	16.0	3.2	7.8	1.9	1900	86
AUG 04...	0900	926	488	7.4	25.5	4.7	5.2	2.9	9700	300
SEP 23...	0900	1400	445	7.4	17.5	.30	3.8	3.0	670	180

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV 06...	160	83	44	11	23	24	.8	4.7	70	30
JAN 14...	160	85	46	12	26	25	.9	5.0	83	42
MAR 16...	--	--	--	--	15	1	--	3.2	56	27
MAY 20...	150	--	42	10	21	23	.8	3.9	72	34
AUG 04...	180	--	54	12	27	24	.9	5.6	83	42
SEP 23...	180	--	49	13	24	22	.8	5.1	77	41

03107500 BEAVER RIVER AT BEAVER FALLS, PA--Continued
(National stream quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
NOV 06...	.3	3.7	260	234	.35	1510	.87	.89	.540	.560
JAN 14...	.4	5.7	290	272	.39	1490	.95	.96	2.00	1.90
MAR 16...	.2	5.8	206	11	.28	2680	1.2	1.2	.500	.480
MAY 20...	.3	3.8	261	239	.35	2070	1.1	1.0	.250	.300
AUG 04...	.5	5.0	332	287	.45	830	1.5	1.5	.130	.120
SEP 23...	.5	3.6	294	270	.40	1110	1.7	1.8	.510	.510

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV 06...	.65	.72	.86	.04	1.40	.80	.60	2.3	10	.520
JAN 14...	2.4	2.4	.40	.00	2.40	.60	1.8	3.4	15	.200
MAR 16...	--	.62	.60	.39	1.10	.23	.87	2.3	10	.150
MAY 20...	--	.39	.72	.62	.97	.05	.92	2.1	9.2	.220
AUG 04...	--	.15	1.2	1.3	1.30	.00	1.4	2.8	12	.480
SEP 23...	--	.66	.69	.69	1.20	.00	1.2	2.9	13	.280

03107500 BEAVER RIVER AT BEAVER FALLS, PA--Continued
(National stream quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
JAN											
14...	--	<10	3	3	0	5	3	2	1300	--	<10
MAR											
16...	0	10	1	0	1	5	3	2	--	--	80
AUG											
04...	0	10	1	0	2	4	0	4	670	660	10
SEP											
23...	0	10	1	0	5	6	--	<1	1400	1400	20

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANFSE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)
JAN											
14...	9	9	0	280	20	260	.2	.1	.1	12	2
MAR											
16...	26	2	24	--	--	180	<.1	--	<.1	9	3
AUG											
04...	14	6	8	270	60	210	<.1	--	<.1	10	0
SEP											
23...	9	7	2	290	60	230	<.1	--	<.1	14	7

DATE	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JAN										
14...	10	0	0	0	0	0	0	300	120	180
MAR										
16...	6	0	--	--	0	0	0	--	--	50
AUG										
04...	10	<1	--	<1	<1	--	<1	40	20	20
SEP										
23...	7	<1	--	<1	<1	--	<1	90	50	40

BEST DOCUMENT AVAILABLE

03107500 BEAVER RIVER AT BEAVER FALLS, PA--Continued
(National stream quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV									
06...	1.6	.190	6.6	--	--	12000	93	540	99
JAN									
14...	.61	.050	--	7.2	.7	--	400	2050	81
MAR									
16...	.46	.050	--	3.7	.7	1000	23	299	--
MAY									
20...	.67	.080	5.5	--	--	11000	8	64	86
AUG									
04...	1.5	.340	--	4.1	1.3	75000	228	570	95
SEP									
23...	.86	.140	--	3.7	.9	17000	34	129	72

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
JAN											
14...	0930	2	1	1	100	60	40	0	0	0	10
MAR											
16...	1400	0	--	--	100	--	--	1	1	0	10
AUG											
04...	0900	2	0	2	100	70	30	2	0	3	10
SEP											
23...	0900	3	0	3	100	0	100	<1	--	<1	10

BEST DOCUMENT AVAILABLE

LAKES AND RESERVOIRS IN BEAVER RIVER BASIN

03100500 PYMATUNING RESERVOIR.--Lat 41°29'54", long 80°27'47", Crawford County, Hydrologic Unit 05030102, in gatehouse at Pymatuning Dam on Shenango River, 1.8 mi (2.9 km) northwest of Jamestown, Pa., and at mile 85.1 (136.9 km). DRAINAGE AREA, 158 mi² (409 km²). PERIOD OF RECORD, October 1932 to current year. Contents prior to October 1938 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is at mean sea level, adjustment of 1907. Prior to Nov. 20, 1934, nonrecording gage at same site and datum.

Reservoir is formed in two parts. The main dam is earthfill with stone facing, provided with regulating gates (outlet gate sill elevation at 975.3 ft or 297.27 m), and a spillway with crest elevation at 1,008.0 ft (307.24 m). An auxiliary dam 15 mi (24 km) upstream from the main dam with spillway elevation at 1,010 ft (307.8 m) has a fixed crest weir section in the earthfill causeway. Storage began Jan. 23, 1934, when all regulating gates were closed. Capacity, 188,040 acre-ft (232 hm³) between elevations, 975.3 ft (297.27 m) and 1,008.0 ft (307.24 m) was reached in March 1936. Dead storage 10,150 acre-ft or 12.5 hm³ (93 acre-ft) or 115,000 m³ behind main dam below elevation 975.3 ft or 297.27 m and 10,060 acre-ft or 12.4 hm³ behind upstream dam below elevation 1,010 ft (307.8 m). Upstream pool was filled (all dead storage accumulated) on March 5, 1934. Figures given herein represent usable contents. Reservoir is used to regulate flow in Shenango River, for flood control, and for recreation. Dams built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 210,680 acre-ft (260 hm³) June 26, 1972 (elevation, 1,009.53 ft or 307.705 m); minimum (after first filling), 110,570 acre-ft (136 hm³) Dec. 4, 1953 (elevation, 1,002.17 ft or 305.461 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 197,700 acre-ft (244 hm³) June 10 (elevation, 1,008.66 ft or 307.440 m); minimum, 149,870 acre-ft (185 hm³); Jan. 26 (elevation, 1005.26 ft or 306.404 m).

03106280 LAKE ARTHUR.--Lat 40°57'45", long 80°07'17", Butler County, Hydrologic Unit 05030105, in gatehouse at left end of spillway of Lake Arthur Dam on Muddy Creek, at Moraine State Park, 3 mi (5 km) northeast of Portersville, Pa. DRAINAGE AREA, 50.8 mi² (131.6 km²). PERIOD OF RECORD, May 1969 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (Pennsylvania Department of Environmental Resources bench mark). Prior to Aug. 23, 1969, nonrecording gage at same site and datum.

Lake is formed by an earthfill dam with concrete spillway. Storage began May 15, 1969. Usable capacity, 37,000 acre-ft (45.6 hm³) between elevations 1,160 ft or 353.6 m (sill of 6 ft or 1.8 m outlet gate) and 1,189.8 ft or 362.65 m (spillway crest). No dead storage. Figures given herein represent usable contents. Lake is used for recreation. Dam built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents 44,060 acre-ft (54.3 hm³) June 26, 1972 (elevation, 1,191.96 ft or 363.309 m); minimum (after first filling), 21,320 acre-ft (26.3 hm³) Nov. 30, 1975 (elevation, 1,183.88 ft or 360.847 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 43,010 acre-ft (53.0 hm³) Feb. 23 (elevation, 1,191.65 ft or 363.216 m); minimum, 36,760 acre-ft (45.3 hm³) Sept. 28 (elevation, 1,189.72 ft or 362.627 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	03100500 Pymatuning Reservoir			03106280 Lake Arthur		
Sept. 30	1007.13	175580	--	1190.25	38400	--
Oct. 31	1007.19	176430	+ 13.8	1190.30	38560	+ 2.6
Nov. 30	1007.34	178560	+ 35.8	1190.41	38910	+ 5.9
Dec. 31	1005.86	157970	- 335	1190.35	38720	- 3.1
CAL YR 1980	--	--	- 21.2	--	--	- 0.8
Jan. 31	1005.39	151620	- 103	1190.30	38560	- 2.6
Feb. 28	1007.73	184140	+ 586	1191.17	41380	+ 50.8
Mar. 31	1007.57	181840	- 37.4	1190.56	39390	- 32.4
Apr. 30	1008.55	196080	+ 239	1191.03	40900	+ 25.4
May 31	1007.86	186010	- 164	1190.36	38750	- 35.0
June 30	1007.62	182560	- 58.0	1190.44	39010	+ 4.4
July 31	1007.56	181700	- 14.0	1190.09	37890	- 18.2
Aug. 31	1007.53	181270	- 7.0	1189.89	37270	- 10.1
Sept. 30	1007.79	185010	+ 62.9	1189.76	36880	- 6.6
WTR YR 1981	--	--	+ 13.0	--	--	- 2.1

03108000 RACCOON CREEK AT MOFFATTS MILL, PA

LOCATION.--Lat 40°37'40", long 80°20'16", Beaver County, Hydrologic Unit 05030101, on left bank at downstream side of highway bridge at Moffatts Mill, 1.4 mi (2.2 km) downstream from Gums Run, 4 mi (6 km) south of Vanport, and 4.2 mi (6.8 km) upstream from mouth.
DRAINAGE AREA.--178 mi² (461 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1941 to current year. May 1915 to July 1932 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters.
REVISED RECORDS.--WSP 1385: 1941-43.
GAGE.--Water-stage recorder. Datum of gage is 719.16 ft (219.200 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). May 27, 1915 to July 31, 1932, and Sept. 2 to Dec. 3, 1941, nonrecording gages at same site and datum.
REMARKS.--Records good except those for winter period, which are fair. Normally no regulation from Raccoon Creek Lake. Diversion out of the basin from Cherry Valley and Service Creek Reservoirs upstream increased from an average of 4.0 ft³/s (0.11 m³/s) at the close of 1957 to 6.8 ft³/s (0.19 m³/s) for the present year; diversion began with 2.0 ft³/s (0.057 m³/s) for September 1957. Published records do not include diversion. Records of diversion furnished by Western Pennsylvania Water Company and Ambridge Water Authority. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--40 years, 193 ft³/s (5.466 m³/s), 14.72 in/yr (374 mm/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,590 ft³/s (243 m³/s) Jan. 27, 1952, gage height, 9.71 ft (2.960 m); minimum, 4.5 ft³/s (0.13 m³/s) Aug. 24, 25, 1965; minimum gage height, 1.28 ft (0.390 m) Aug. 26, 1962.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 15, 1922, reached a stage of 9.80 ft (2.987 m), discharge, 10,000 ft³/s (283 m³/s). Flood of Mar. 5, 1920, also reached a stage of 9.80 ft (2.987 m), backwater from ice.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s (51.0 m³/s), and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 13	0830	ice jam		*5.69	1.734	Apr. 12	1700	*2750	77.9	5.44	1.658
Feb. 20	2200	2130	60.3	5.03	1.533	June 9	1500	2140	60.6	4.84	1.475
Feb. 23	2230	1910	54.1	4.60	1.402						

Minimum discharge, 25 ft³/s (0.71 m³/s) Aug. 24, gage height, 1.52 ft (0.463 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	51	211	66	150	436	215	574	100	365	107	48
2	53	48	200	58	290	380	196	442	102	219	89	102
3	56	45	192	52	484	325	167	365	189	182	84	113
4	54	46	163	46	317	251	164	315	544	153	80	277
5	51	46	149	48	238	286	335	273	282	182	76	178
6	49	42	105	54	227	335	325	219	219	143	65	110
7	48	41	123	60	195	295	282	211	167	105	61	92
8	49	48	130	66	170	268	264	174	130	92	60	146
9	46	51	139	64	150	251	247	157	1410	87	56	146
10	45	56	192	60	160	255	231	143	970	80	49	71
11	76	41	174	58	170	255	215	171	689	73	48	58
12	63	44	156	56	240	235	1960	185	478	69	46	53
13	49	41	149	54	860	211	1690	153	385	92	45	82
14	45	41	130	64	823	200	1190	133	808	100	43	60
15	42	41	111	64	572	185	930	146	514	65	43	82
16	42	41	130	62	475	227	696	140	380	58	51	76
17	41	34	110	60	726	231	568	120	418	54	46	123
18	44	46	90	54	779	204	568	107	231	51	41	97
19	54	56	78	50	753	200	436	102	189	49	38	97
20	49	44	64	54	1500	193	375	100	164	71	37	80
21	42	44	58	58	1640	189	320	92	160	189	34	67
22	40	54	54	64	906	193	280	82	286	130	34	61
23	37	53	56	68	1160	189	310	78	247	80	34	61
24	38	111	64	62	1400	164	345	73	174	61	31	61
25	133	262	72	58	850	157	325	71	538	58	31	61
26	215	153	80	90	628	146	291	69	592	211	31	60
27	78	153	88	200	514	193	270	105	325	196	30	63
28	71	250	80	170	472	200	250	110	243	211	29	58
29	76	258	74	150	---	189	450	140	196	550	28	53
30	58	227	82	125	---	204	794	140	171	286	107	41
31	54	---	74	120	---	239	---	133	---	208	69	---
TOTAL	1851	2468	3578	2315	16859	7286	14689	5323	11301	4470	1623	2677
MEAN	59.7	82.3	115	74.7	602	235	490	172	377	144	52.4	89.2
MAX	215	262	211	200	1640	436	1960	574	1410	550	107	277
MIN	37	34	54	46	150	146	164	69	100	49	28	41
CFSM	.34	.46	.65	.42	3.38	1.32	2.75	.97	2.12	.81	.29	.50
IN.	.39	.52	.75	.48	3.52	1.52	3.07	1.11	2.36	.93	.34	.56

CAL YR 1980 TOTAL 97651 MEAN 267 MAX 3030 MIN 34 CFSM 1.50 IN 20.41
WTR YR 1981 TOTAL 74440 MEAN 204 MAX 1960 MIN 28 CFSM 1.15 IN 15.56

03108000 RACCOON CREEK AT MOFFATTS MILL, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1976 to May 1978, November 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV										
19...	1215	52	1750	4.4	2.5	1.1	55	--	780	1320
JAN										
13...	1245	42	1200	6.4	.0	--	--	22	620	1070
MAR										
10...	1145	261	870	7.0	4.5	--	--	47	310	591
APR										
30...	1445	742	550	7.2	12.5	--	--	40	200	406
JUN										
10...	1345	1020	505	7.3	18.0	.1	5.0	38	160	349
SEP										
08...	1340	158	950	7.3	20.5	.1	5.0	48	330	702

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV										
19...	1.8	188	3500	400	3100	3500	0	3600	6	.86
JAN										
13...	1.4	122	14000	2000	12000	2500	0	2500	--	--
MAR										
10...	.80	416	5300	5300	40	1200	200	1000	47	33
APR										
30...	.55	813	4400	4400	30	630	110	520	93	186
JUN										
10...	.47	961	9200	9200	50	810	350	460	226	622
SEP										
08...	.95	299	3500	--	<10	910	170	740	1015	433

WHEELING CREEK BASIN

03111585 ENLOW FORK NEAR WEST FINLEY, PA

LOCATION.--Lat 39°58'06", long 80°26'53", Washington County, Hydrologic Unit 05030106, on right bank, 20 ft (6.096 m) from bridge on Legislative Route 62007, 0.6 mi (1.0 km) downstream of Templeton Fork and 1.7 mi (2.7 km) southeast of West Finley, Pa.

DRAINAGE AREA.--38.1 mi² (98.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 930 ft (283 m) from topographic map.

REMARKS.--Records good except for winter periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft³/s (69.1 m³/s) August 18, 1980, gage height, 9.79 ft (2.984 m); minimum daily, 2.3 ft³/s (0.06 m³/s), Oct. 13, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 2	0545	685	19.4	5.65	1.722
Apr. 12	2145	*2360	66.8	*9.61	2.929
June 5	1515	990	28.0	6.57	2.003
June 14	0915	944	26.7	6.44	1.963
July 28	2215	2300	65.1	9.51	2.899

Minimum daily discharge, 2.3 ft³/s (0.06 m³/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	8.5	54	11	60	78	28	60	98	161	37	19
2	5.0	7.1	64	10	437	64	25	48	66	50	28	22
3	4.3	6.3	73	9.4	80	52	23	39	88	28	25	112
4	5.4	9.3	55	9.0	66	47	22	34	231	23	56	98
5	4.7	8.1	47	8.4	58	88	28	30	410	22	28	41
6	3.6	6.3	44	8.2	46	85	23	34	495	20	22	20
7	3.6	5.5	49	7.8	38	66	21	27	213	16	19	13
8	3.1	9.9	55	7.6	36	54	20	22	102	15	16	17
9	2.9	8.8	117	8.0	46	48	26	19	124	14	12	14
10	2.6	7.7	132	8.6	60	45	26	22	245	12	11	9.5
11	3.1	5.9	85	9.6	150	42	78	46	153	10	9.0	7.0
12	2.4	5.1	67	11	70	36	1050	39	86	9.5	8.5	7.1
13	2.3	4.7	56	12	62	33	607	30	109	26	7.5	6.5
14	2.4	4.5	44	14	54	29	303	27	436	18	7.0	5.5
15	3.1	4.7	38	11	50	27	195	67	130	12	7.5	18
16	3.4	5.4	31	9.2	78	71	128	51	79	10	11	11
17	3.0	10	27	8.2	159	63	108	39	63	11	7.0	19
18	8.1	46	23	7.2	155	53	126	33	32	8.5	6.0	16
19	8.7	29	21	6.4	138	47	91	34	23	7.0	5.0	30
20	4.9	24	18	6.2	316	42	75	29	20	19	4.6	16
21	4.5	26	17	7.4	255	39	56	23	22	28	4.2	12
22	4.8	24	15	5.4	147	38	48	20	44	20	4.2	8.5
23	5.4	22	14	9.8	346	38	94	17	20	12	3.4	8.0
24	6.8	118	12	11	260	35	106	14	15	10	3.4	7.2
25	80	88	12	16	144	33	91	13	55	9.5	3.4	6.5
26	49	54	11	72	97	30	75	12	31	32	3.4	5.9
27	24	67	10	56	71	39	85	14	18	157	3.0	6.0
28	19	72	9.4	40	80	32	103	136	15	622	2.6	5.0
29	14	64	11	31	---	32	94	186	14	416	3.0	4.6
30	11	54	13	30	---	34	72	135	56	123	20	4.6
31	9.2	---	12	36	---	29	---	220	---	62	14	---
TOTAL	308.0	805.8	1236.4	500.4	3559	1449	3827	1520	3493	1983.5	391.7	569.9
MEAN	9.94	26.9	39.9	16.1	127	46.7	128	49.0	116	64.0	12.6	19.0
MAX	80	118	132	72	437	88	1050	220	495	622	56	112
MIN	2.3	4.5	9.4	6.2	36	27	20	12	14	7.0	2.6	4.6
CFSM	.26	.71	1.05	.42	3.33	1.23	3.36	1.29	3.05	1.68	.33	.50
IN.	.30	.79	1.21	.49	3.47	1.41	3.74	1.48	3.41	1.94	.38	.56

CAL YR 1980 TOTAL 23737.8 MEAN 64.9 MAX 1090 MIN 2.3 CFSM 1.70 IN 23.18
WTR YR 1981 TOTAL 19643.7 MEAN 53.8 MAX 1050 MIN 2.3 CFSM 1.41 IN 19.18

BEST DOCUMENT AVAILABLE

03111585 ENLOW FORK NEAR WEST FINLEY, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
pH: October 1979 to current year.
WATER TEMPERATURE: October 1979 to current year.
DISSOLVED OXYGEN: April 1981 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor and automatic sediment sampler since October 1979.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality monitor record, samples were collected approximately once a month.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 342 micromhos Oct. 24, 25, 1981; minimum, 87 micromhos Apr. 9, 1980.
pH: Maximum, 9.2 on several days, minimum, 7.0 June 5, 1981.
WATER TEMPERATURE: Maximum, 29.5°C July 20, 1980; minimum, freezing point on many days during winter period.
DISSOLVED OXYGEN: Maximum, 13.0 mg/L Apr. 21, May 21, 1981; minimum, 5.9 mg/L May 24, 1981.
SEDIMENT CONCENTRATIONS: Maximum daily, 2,150 mg/L Apr. 12, 1981; minimum daily, 1 mg/L on several days.
SEDIMENT DISCHARGES: Maximum daily, 7,510 tons (6,810 tonnes) Apr. 12, 1981; minimum daily 0.0 ton (0.0 tonne) on several days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 342 micromhos Oct. 24, 25; minimum, 101 micromhos July 28.
pH: Maximum, 8.9 Mar. 26, 29; minimum, 7.0 June 5.
WATER TEMPERATURE: Maximum, 27.0°C July 9, 10; minimum, freezing point on many days during winter period.
DISSOLVED OXYGEN: Maximum, 13.0 mg/L Apr. 21, May 21; minimum, 5.9 mg/L May 24.
SEDIMENT CONCENTRATIONS: Maximum daily, 2,150 mg/L Apr. 12; minimum daily, 1 mg/L on several days.
SEDIMENT DISCHARGES: Maximum daily, 7,510 tons (6,810 tonnes) Apr. 12; minimum daily 0.0 ton (0.0 tonne) on several days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT										
17...	1200	2.8	331	8.2	12.0	--	.0	--	--	--
NOV										
21...	1200	28	310	8.1	.5	--	.0	--	--	--
DEC										
08...	1630	54	275	8.2	11.0	--	.0	--	--	--
JAN										
15...	1230	14	310	7.9	.0	--	2.0	--	--	--
FEB										
09...	1700	40	275	7.4	.0	--	6.0	--	--	--
MAR										
09...	1630	52	240	8.1	5.5	--	.0	--	--	--
APR										
14...	1315	258	180	7.4	14.0	--	2.0	--	--	--
MAY										
11...	1630	43	260	8.5	18.0	--	--	--	--	--
JUN										
02...	1330	64	238	7.9	17.5	--	1.0	--	--	--
04...	1115	130	218	7.7	18.0	--	5.0	--	--	--
04...	1615	560	150	7.4	23.0	--	5.0	--	--	--
05...	1115	168	207	7.8	17.0	--	4.0	--	--	--
JUL										
31...	0830	66	230	7.6	15.5	--	.0	--	--	--
AUG										
19...	1130	6.1	270	8.2	16.5	130	.0	45	5.4	5.7
SEP										
14...	1530	6.6	290	8.4	22.5	--	--	--	--	--

03111585 ENLOW FORK NEAR WEST FINLEY, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT									
17...	--	160	--	130	33	5.7	--	--	195
NOV									
21...	--	130	--	100	35	3.9	--	--	169
DEC									
08...	--	98	--	80	38	4.5	--	--	152
JAN									
15...	--	130	--	110	36	3.9	--	--	175
FEB									
09...	--	110	--	88	38	4.9	--	--	171
MAR									
09...	--	76	--	62	36	3.0	--	--	146
APR									
14...	--	59	--	48	32	2.2	--	--	121
MAY									
11...	--	76	22	98	34	3.1	--	--	169
JUN									
02...	--	110	--	88	31	--	--	--	153
04...	--	93	--	76	28	--	--	--	129
04...	--	110	--	58	23	--	--	--	255
05...	--	83	--	68	29	--	--	--	136
JUL									
31...	--	100	--	84	32	2.5	--	--	144
AUG									
19...	2.0	140	--	110	27	3.1	.1	4.0	176
SEP									
14...	--	130	7	120	33	4.6	--	--	182

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
17...	--	--	--	200	30	10	10	--	--
NOV									
21...	--	--	--	220	20	10	10	--	--
DEC									
08...	--	--	--	240	10	20	10	--	--
JAN									
15...	--	--	--	70	10	20	10	--	--
FEB									
09...	--	--	--	1300	10	60	20	--	--
MAR									
09...	--	--	--	370	0	30	10	--	--
APR									
14...	--	--	--	2000	60	110	10	--	--
MAY									
11...	--	--	--	370	30	20	10	--	--
JUN									
02...	--	--	--	630	10	30	10	--	--
04...	--	--	--	13000	60	660	10	--	--
04...	--	--	--	19000	400	730	60	--	--
05...	--	--	--	3100	40	140	10	--	--
JUL									
31...	--	--	--	750	10	40	10	--	--
AUG									
19...	.54	50	30	60	10	10	4	<10	<4
SEP									
14...	--	--	--	260	20	10	10	--	--

03111585 ENLOW FORK NEAR WEST FINLEY, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	317	307	314	---	---	---	251	248	249			
2	319	309	315	---	---	---	253	236	247			
3	317	308	313	---	---	---	236	232	234			
4	316	310	311	---	---	---	243	237	239			
5	316	310	313	306	301	304	249	243	246			
6	316	309	314	308	302	305	255	249	251			
7	318	309	315	311	301	306	259	248	254			
8	320	311	316	310	301	304	256	250	254			
9	323	311	318	310	303	307	253	222	241			
10	324	311	318	310	305	308	226	221	223			
11	326	319	322	310	304	307	232	226	229			
12	327	321	324	310	303	307	241	232	236			
13	326	321	323	309	302	306	246	241	244			
14	325	322	324	310	302	307	249	246	247			
15	326	323	325	312	307	310	252	249	250			
16	329	326	328	311	303	308	255	252	253			
17	333	328	330	309	263	295	258	255	256			
18	337	324	329	263	253	259	263	258	260			
19	333	328	330	272	263	269	267	259	262			
20	336	333	334	276	372	274	---	---	---			
21	339	336	337	277	273	275	---	---	---			
22	341	339	340	275	274	274	---	---	---			
23	340	339	340	277	272	275	---	---	---			
24	342	340	340	273	227	248	---	---	---			
25	342	265	299	236	228	231	---	---	---			
26	---	---	---	244	236	239	---	---	---			
27	---	---	---	247	234	240	---	---	---			
28	---	---	---	239	236	238	---	---	---			
29	---	---	---	240	237	238	---	---	---			
30	---	---	---	248	240	245	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	342	265	323	312	227	280	267	221	246			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	225	223	224	261	250	255	---	---	---
2	---	---	---	229	226	227	263	251	257	---	---	---
3	---	---	---	233	229	231	265	251	259	---	---	---
4	---	---	---	236	233	234	271	256	264	---	---	---
5	---	---	---	234	219	227	270	261	266	---	---	---
6	---	---	---	222	218	219	275	263	269	---	---	---
7	---	---	---	227	222	224	269	262	267	---	---	---
8	---	---	---	232	227	229	273	262	268	---	---	---
9	---	---	---	238	232	235	278	258	272	---	---	---
10	---	---	---	240	238	239	261	254	258	---	---	---
11	---	---	---	243	240	242	---	---	---	---	---	---
12	---	---	---	248	244	246	---	---	---	268	259	264
13	---	---	---	251	248	250	---	---	---	270	250	261
14	---	---	---	253	250	251	---	---	---	274	250	262
15	---	---	---	255	251	253	205	186	196	257	251	254
16	---	---	---	252	230	239	218	205	211	260	249	256
17	---	---	---	230	227	228	224	218	220	264	246	256
18	---	---	---	238	229	232	225	204	216	269	255	261
19	213	208	210	235	231	232	227	221	225	269	245	259
20	213	179	194	239	234	236	234	227	231	259	241	251
21	198	181	190	241	237	239	240	234	237	270	248	256
22	210	198	204	246	240	242	244	240	243	269	249	260
23	212	168	188	246	237	242	244	224	236	275	254	265
24	194	178	186	246	238	243	228	224	226	279	264	272
25	206	194	200	248	239	244	230	226	227	284	274	279
26	216	206	211	248	240	245	232	229	231	294	284	289
27	226	216	221	248	243	245	237	227	231	296	288	292
28	228	222	225	251	242	247	238	222	229	301	140	262
29	---	---	---	253	238	247	235	224	231	221	147	196
30	---	---	---	256	247	252	239	229	235	236	150	222
31	---	---	---	260	245	253	---	---	---	214	152	193
MONTH	228	168	203	260	218	239	278	186	241	301	140	256

BEST DOCUMENT AVAILABLE

03111585 ENLOW FORK NEAR WEST FINLEY, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	231	214	222	237	164	209	---	---	---	286	275	279
2	251	231	240	258	238	248	---	---	---	286	273	277
3	253	217	239	271	258	264	---	---	---	278	216	243
4	248	163	211	280	267	273	---	---	---	242	219	229
5	210	128	183	281	259	272	---	---	---	262	242	252
6	187	157	171	286	280	283	---	---	---	275	262	268
7	208	169	192	290	283	286	---	---	---	283	275	279
8	225	208	216	297	285	290	295	289	292	285	281	283
9	226	213	218	301	292	297	296	289	292	285	282	283
10	225	183	201	305	293	300	296	289	293	284	277	279
11	217	199	207	304	293	300	295	277	286	287	278	281
12	235	218	226	305	290	299	287	280	283	294	283	287
13	246	176	235	304	258	285	287	279	283	307	287	298
14	200	146	181	296	262	280	288	280	283	299	268	294
15	227	200	213	304	296	300	293	284	288	297	285	290
16	239	206	231	299	285	290	296	289	291	295	287	291
17	246	219	238	294	283	288	295	289	292	291	264	274
18	257	246	250	297	285	290	293	286	288	273	247	266
19	265	257	261	298	288	293	292	285	288	261	248	253
20	270	266	268	299	251	287	293	288	290	271	262	267
21	274	250	270	268	224	253	293	287	290	279	271	274
22	261	221	246	274	231	256	295	289	292	284	278	281
23	268	245	258	286	274	280	295	290	292	282	278	280
24	274	268	272	293	285	288	295	290	293	282	275	278
25	278	225	247	299	289	293	296	291	293	285	274	278
26	258	232	248	300	184	277	297	291	294	292	280	284
27	268	258	262	221	136	187	300	295	297	295	287	290
28	273	267	270	227	101	165	303	300	301	295	285	289
29	278	272	275	182	120	171	308	302	305	290	282	285
30	286	165	267	---	---	---	307	256	278	295	288	291
31	---	---	---	---	---	---	294	275	283	---	---	---
MONTH	286	128	234	305	101	269	308	256	290	307	216	277

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.4	8.0	8.1	---	---	---	8.2	7.9	8.0			
2	8.3	7.9	8.1	---	---	---	8.1	7.9	7.9			
3	8.5	8.0	8.2	---	---	---	8.1	7.9	8.0			
4	8.5	8.0	8.2	---	---	---	8.2	7.9	8.0			
5	8.5	8.1	8.2	8.5	8.1	8.3	8.2	7.9	8.0			
6	8.4	8.1	8.2	8.5	8.1	8.2	8.2	7.9	8.0			
7	8.4	8.0	8.2	8.5	8.0	8.2	8.3	7.8	8.0			
8	8.4	8.0	8.2	8.5	7.9	8.1	8.4	7.8	8.0			
9	8.5	8.0	8.2	8.4	8.0	8.1	7.9	7.8	7.8			
10	8.5	8.0	8.2	8.5	8.0	8.2	7.9	7.8	7.8			
11	8.3	7.9	8.1	8.5	8.1	8.3	8.1	7.8	7.9			
12	8.4	8.0	8.1	8.5	8.1	8.2	8.2	7.9	8.0			
13	8.4	8.0	8.2	8.5	8.1	8.2	8.2	7.9	8.0			
14	8.3	8.0	8.2	8.6	8.0	8.2	8.4	7.9	8.1			
15	8.3	8.0	8.1	8.3	8.0	8.1	8.4	8.0	8.1			
16	8.2	7.9	8.1	8.6	8.1	8.3	8.3	7.9	8.1			
17	8.2	7.8	8.0	8.4	8.1	8.2	8.5	8.0	8.2			
18	7.9	7.8	7.9	8.1	8.0	8.0	8.5	8.0	8.2			
19	8.1	7.9	8.0	8.2	8.0	8.1	8.6	8.0	8.2			
20	8.1	7.9	8.0	8.2	8.0	8.1	---	---	---			
21	8.1	7.9	8.0	8.3	8.0	8.1	---	---	---			
22	8.1	7.9	8.0	8.4	8.1	8.2	---	---	---			
23	8.1	7.9	8.0	8.4	8.0	8.1	---	---	---			
24	8.1	7.9	8.0	8.0	7.7	7.8	---	---	---			
25	7.9	7.8	7.9	8.0	7.7	7.9	---	---	---			
26	---	---	---	8.1	7.9	8.0	---	---	---			
27	---	---	---	8.0	7.8	7.9	---	---	---			
28	---	---	---	8.0	7.8	7.9	---	---	---			
29	---	---	---	8.1	7.9	7.9	---	---	---			
30	---	---	---	8.1	7.9	8.0	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	8.5	7.8	8.1	8.6	7.7	8.1	8.6	7.8	8.0			

03111585 ENLOW FORK NEAR WEST FINLEY, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY		FEBRUARY			MARCH			APRIL			MAY	
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	8.0	7.8	7.9	8.6	7.7	8.1	---	---	---
2	---	---	---	8.0	7.9	7.9	8.7	7.8	8.1	---	---	---
3	---	---	---	8.1	7.9	8.0	8.7	7.8	8.2	---	---	---
4	---	---	---	8.1	7.9	8.0	8.6	7.8	8.1	---	---	---
5	---	---	---	7.9	7.8	7.9	8.5	7.7	8.0	---	---	---
6	---	---	---	8.0	7.8	7.9	8.5	7.8	8.1	---	---	---
7	---	---	---	8.1	7.9	8.0	8.5	7.9	8.1	---	---	---
8	---	---	---	8.1	7.9	8.0	8.6	7.8	8.1	---	---	---
9	---	---	---	8.2	7.9	8.0	8.4	7.7	8.0	---	---	---
10	---	---	---	8.2	7.9	8.0	8.4	7.7	8.0	---	---	---
11	---	---	---	8.3	7.9	8.1	---	---	---	---	---	---
12	---	---	---	8.3	7.9	8.1	---	---	---	8.5	7.7	8.0
13	---	---	---	8.4	7.9	8.1	---	---	---	8.7	7.8	8.2
14	---	---	---	8.4	8.0	8.2	---	---	---	8.7	7.7	8.1
15	---	---	---	8.5	8.0	8.2	7.6	7.5	7.6	8.1	7.6	7.8
16	---	---	---	8.2	7.9	8.0	7.8	7.6	7.7	8.5	7.7	8.0
17	---	---	---	8.3	7.9	8.0	7.8	7.6	7.7	8.6	7.7	8.1
18	---	---	---	8.3	7.9	8.1	7.8	7.6	7.7	8.4	7.6	8.0
19	7.9	7.7	7.8	8.4	7.9	8.1	7.9	7.7	7.8	8.7	7.7	8.1
20	7.8	7.6	7.7	8.5	8.0	8.2	8.0	7.7	7.8	8.7	7.8	8.2
21	7.7	7.6	7.7	8.6	7.9	8.2	8.0	7.8	7.9	8.8	7.7	8.2
22	7.8	7.7	7.8	8.6	7.9	8.2	8.1	7.7	7.9	8.7	7.7	8.2
23	7.8	7.6	7.7	8.8	7.9	8.3	7.9	7.7	7.8	8.7	7.6	8.1
24	7.7	7.6	7.7	8.8	7.9	8.3	8.0	7.7	7.8	8.6	7.6	8.0
25	7.8	7.7	7.8	8.8	7.9	8.3	8.2	7.8	7.9	8.5	7.6	8.0
26	7.9	7.8	7.9	8.9	7.9	8.3	8.3	7.7	8.0	8.4	7.5	7.9
27	8.0	7.9	7.9	8.8	7.8	8.3	8.5	7.7	8.0	8.2	7.5	7.8
28	7.9	7.8	7.9	8.7	7.9	8.3	8.4	7.6	7.9	7.9	7.2	7.6
29	---	---	---	8.9	7.9	8.3	8.5	7.6	8.0	7.6	7.2	7.4
30	---	---	---	8.5	7.8	8.1	8.6	7.7	8.0	7.8	7.2	7.6
31	---	---	---	8.7	7.8	8.2	---	---	---	7.6	7.2	7.4
MONTH	8.0	7.6	7.8	8.9	7.8	8.1	8.7	7.5	7.9	8.8	7.2	7.9

DAY		JUNE			JULY			AUGUST			SEPTEMBER	
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.7	7.5	7.6	7.8	7.4	7.6	---	---	---	8.1	7.8	7.9
2	7.9	7.6	7.7	8.1	7.7	7.9	---	---	---	8.0	7.7	7.8
3	7.6	7.6	7.6	8.2	7.8	8.0	---	---	---	7.8	7.6	7.7
4	7.7	7.4	7.6	8.3	7.8	8.0	---	---	---	7.7	7.6	7.7
5	7.7	7.0	7.4	8.2	7.8	8.0	---	---	---	8.0	7.7	7.8
6	7.5	7.3	7.4	8.4	7.9	8.1	---	---	---	8.1	7.8	7.9
7	7.6	7.4	7.6	8.4	7.9	8.1	---	---	---	8.2	7.8	8.0
8	7.8	7.6	7.8	8.4	7.9	8.1	8.2	7.9	8.0	8.1	7.8	7.9
9	7.8	7.8	7.8	8.4	7.8	8.0	8.3	7.8	8.0	8.3	7.9	8.0
10	7.8	7.7	7.7	8.4	7.8	8.0	8.4	7.8	8.1	8.4	7.9	8.1
11	7.9	7.7	7.8	8.4	7.9	8.1	8.4	7.8	8.0	8.4	7.9	8.1
12	7.9	7.8	7.8	8.5	7.9	8.1	8.3	7.8	8.1	8.4	7.8	8.1
13	8.1	7.7	7.9	8.0	7.8	7.9	8.4	7.9	8.1	8.5	7.8	8.1
14	7.7	7.5	7.6	8.3	7.7	8.0	8.4	7.8	8.1	8.4	7.8	8.0
15	7.9	7.7	7.8	8.4	7.9	8.1	8.2	7.8	8.0	8.1	7.8	7.9
16	8.1	7.9	8.0	8.5	7.9	8.1	8.3	7.8	8.0	8.4	7.9	8.1
17	8.2	7.9	8.1	8.5	7.9	8.2	8.3	7.9	8.1	8.2	7.9	8.0
18	8.2	7.8	7.9	8.5	7.9	8.1	8.4	7.9	8.1	8.4	7.9	8.1
19	8.1	7.8	7.9	8.4	7.8	8.1	8.4	7.9	8.1	8.2	7.9	8.0
20	8.2	7.8	8.0	8.3	7.8	8.0	8.4	7.9	8.1	8.4	8.0	8.1
21	8.3	7.8	8.0	8.1	7.8	7.9	8.4	7.9	8.1	8.5	7.9	8.1
22	8.0	7.8	7.8	8.2	7.8	8.0	8.4	7.9	8.1	8.2	7.9	8.0
23	8.2	7.8	8.0	8.3	7.9	8.1	8.4	7.9	8.1	8.5	8.0	8.2
24	8.3	7.9	8.1	8.4	7.9	8.1	8.4	7.9	8.1	8.5	8.0	8.2
25	7.9	7.7	7.8	8.5	7.9	8.1	8.3	7.9	8.1	8.6	8.0	8.2
26	8.1	7.8	7.9	8.3	7.6	8.0	8.3	7.9	8.1	8.6	8.0	8.2
27	8.3	7.9	8.0	7.8	7.3	7.6	8.3	7.9	8.1	8.5	7.9	8.1
28	8.3	7.9	8.1	7.8	7.0	7.5	8.3	7.8	8.0	8.4	8.0	8.2
29	8.5	7.9	8.1	7.6	7.1	7.5	8.2	7.8	8.0	8.5	8.0	8.2
30	8.4	7.4	8.0	---	---	---	7.9	7.7	7.8	8.5	8.0	8.1
31	---	---	---	---	---	---	8.1	7.8	7.9	---	---	---
MONTH	8.5	7.0	7.8	8.5	7.0	8.0	8.4	7.7	8.1	8.6	7.6	8.0

BEST DOCUMENT AVAILABLE

03111585 ENLOW FORK NEAR WEST FINLEY, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.0	14.0	16.0	---	---	---	5.5	3.5	4.5			
2	16.5	14.0	15.5	---	---	---	5.5	4.0	5.0			
3	16.5	13.5	14.5	---	---	---	4.0	2.0	2.5			
4	14.5	12.0	13.0	---	---	---	3.0	1.0	2.0			
5	13.5	11.0	12.0	9.0	6.0	8.0	3.5	2.5	3.0			
6	13.0	9.0	11.0	7.5	4.0	5.5	4.5	3.5	4.0			
7	15.0	11.0	12.5	10.5	5.5	8.0	6.5	4.5	5.5			
8	15.0	10.0	12.5	11.0	8.0	10.0	7.0	6.0	6.5			
9	16.0	12.0	14.0	11.0	7.5	9.0	7.0	5.0	5.5			
10	15.5	11.0	13.5	8.5	5.5	7.0	4.5	4.0	4.0			
11	15.0	13.0	14.0	5.5	4.0	4.5	4.0	3.5	4.0			
12	13.0	11.0	12.0	6.0	3.5	4.5	5.5	3.5	4.5			
13	11.5	9.0	10.0	6.5	2.5	4.5	5.0	3.0	4.5			
14	10.0	7.0	8.5	7.5	3.5	5.5	3.0	1.0	2.0			
15	13.5	8.5	10.5	7.0	6.0	6.5	2.5	.0	1.5			
16	15.0	10.0	12.5	7.0	3.5	5.0	3.0	2.0	2.5			
17	15.5	10.5	13.0	3.5	1.0	2.5	2.0	.5	1.0			
18	16.0	14.0	15.0	3.5	1.5	2.5	3.0	.5	2.0			
19	14.5	11.5	13.0	3.5	2.0	3.0	3.0	.0	2.0			
20	11.5	9.0	9.5	2.5	.5	1.5	---	---	---			
21	12.5	8.5	10.5	2.5	.5	1.5	---	---	---			
22	12.5	9.0	10.5	3.5	1.5	2.5	---	---	---			
23	10.5	6.5	8.5	4.5	1.5	3.0	---	---	---			
24	11.0	7.0	9.0	7.0	4.5	5.5	---	---	---			
25	10.0	8.5	9.5	6.0	4.5	5.5	---	---	---			
26	---	---	---	4.5	2.5	3.5	---	---	---			
27	---	---	---	4.5	3.0	4.0	---	---	---			
28	---	---	---	5.0	3.5	4.5	---	---	---			
29	---	---	---	3.5	3.0	3.0	---	---	---			
30	---	---	---	4.0	3.0	3.5	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	19.0	6.5	12.0	11.0	.5	5.0	7.0	.0	3.5			

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	6.5	4.5	5.0	13.5	9.5	11.5	---	---	---
2	---	---	---	5.5	3.5	4.5	15.0	8.5	11.5	---	---	---
3	---	---	---	4.5	1.5	3.0	15.5	8.5	12.0	---	---	---
4	---	---	---	3.0	.5	2.0	16.0	12.0	14.0	---	---	---
5	---	---	---	4.0	3.0	3.5	14.5	10.5	13.0	---	---	---
6	---	---	---	4.5	2.0	3.5	11.0	7.5	9.0	---	---	---
7	---	---	---	3.0	1.0	2.0	13.0	4.5	8.5	---	---	---
8	---	---	---	3.0	1.5	2.5	16.5	7.0	11.5	---	---	---
9	---	---	---	5.5	2.5	4.0	14.5	11.5	13.0	---	---	---
10	---	---	---	5.5	3.0	4.0	13.0	7.5	10.5	---	---	---
11	---	---	---	5.5	3.5	4.5	---	---	---	---	---	---
12	---	---	---	7.0	1.5	4.5	---	---	---	15.5	11.5	13.0
13	---	---	---	7.5	3.5	5.5	---	---	---	17.5	9.5	13.5
14	---	---	---	6.0	1.5	3.5	---	---	---	20.0	13.5	16.5
15	---	---	---	7.5	.5	4.0	13.0	6.5	9.5	17.0	13.5	15.0
16	---	---	---	6.5	2.0	5.0	13.5	5.5	10.0	14.5	11.5	13.0
17	---	---	---	3.5	.5	1.5	12.5	11.0	11.5	17.0	10.0	13.5
18	---	---	---	3.5	.0	1.5	17.5	12.0	14.5	15.0	11.5	13.0
19	7.0	4.5	6.0	3.0	.5	2.0	13.0	8.5	11.0	11.5	10.5	11.0
20	6.5	5.0	6.0	3.0	.0	1.5	13.5	9.5	11.0	17.0	8.5	12.5
21	5.5	5.0	5.0	4.0	1.5	2.5	12.5	6.0	9.5	18.5	10.5	14.5
22	10.0	5.0	7.5	5.5	.0	3.0	11.5	7.0	9.5	20.0	12.0	16.0
23	8.5	5.5	7.0	8.0	2.5	5.0	14.0	11.0	12.5	19.5	13.5	16.5
24	5.5	4.5	5.0	7.0	2.0	5.0	12.0	8.0	9.5	22.0	15.5	18.5
25	6.5	4.0	5.0	7.5	3.0	5.0	8.5	7.0	8.0	21.5	16.0	19.0
26	4.5	2.5	3.5	8.5	2.0	5.5	13.5	6.0	10.0	22.0	17.5	19.5
27	7.0	2.5	4.5	8.0	5.5	7.0	17.5	10.0	14.0	20.5	18.0	19.5
28	7.5	4.5	6.0	10.5	2.5	6.5	18.5	11.5	15.0	19.5	16.0	18.0
29	---	---	---	13.5	5.0	9.5	17.0	14.0	15.0	16.5	14.5	15.5
30	---	---	---	12.0	10.0	11.0	14.0	11.5	12.5	17.5	14.0	15.5
31	---	---	---	16.0	9.0	12.5	---	---	---	18.0	14.0	16.0
MONTH	10.0	2.5	5.5	16.0	.0	4.5	18.5	4.5	11.5	22.0	8.5	15.5

03111585 ENLOW FORK NEAR WEST FINLEY, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	16.0	11.5	14.0	20.5	17.5	19.0	---	---	---	22.5	19.5	21.0
2	19.0	14.5	16.5	22.0	17.5	19.5	---	---	---	22.5	20.5	21.5
3	19.5	16.0	17.5	22.5	18.5	20.5	---	---	---	21.5	20.0	20.5
4	18.0	16.5	17.5	23.5	19.5	21.5	---	---	---	21.5	19.5	20.5
5	18.5	15.0	16.0	22.0	19.5	20.5	---	---	---	22.0	19.0	20.5
6	17.5	15.0	16.0	23.5	19.5	21.5	---	---	---	21.5	19.0	20.5
7	19.0	13.5	16.5	25.5	20.5	23.0	---	---	---	22.0	18.5	20.5
8	20.0	13.5	16.5	26.5	20.5	23.5	23.5	20.0	21.5	20.5	18.5	19.5
9	21.0	17.0	19.0	27.0	22.5	24.5	23.5	20.0	21.5	19.5	16.0	18.0
10	19.0	16.0	16.5	27.0	22.5	24.5	24.0	19.5	22.0	19.0	14.0	16.5
11	18.5	13.5	16.0	25.5	18.5	22.0	24.0	20.0	22.0	21.0	16.0	18.0
12	20.5	15.0	17.5	26.0	19.0	22.5	24.0	20.0	22.0	22.5	17.5	20.0
13	20.5	17.5	19.0	22.5	21.0	21.5	23.5	19.0	21.5	23.0	18.5	20.5
14	20.0	17.0	18.5	25.0	21.0	22.5	24.0	19.5	21.5	22.5	18.5	20.5
15	21.5	16.0	19.0	23.5	18.0	21.0	22.5	20.5	21.5	21.0	18.5	19.5
16	22.5	17.5	20.0	22.5	19.5	21.0	22.5	20.0	21.5	19.0	16.5	18.0
17	21.0	17.5	19.5	24.5	19.0	21.5	22.0	17.0	19.0	17.5	15.0	16.5
18	21.5	15.0	18.5	26.0	19.0	22.5	21.0	15.0	18.0	15.0	13.0	14.0
19	22.5	17.5	20.0	24.0	20.0	22.0	21.5	14.5	18.0	15.0	13.0	14.0
20	22.0	19.0	20.5	25.0	22.0	23.5	22.0	15.0	18.5	16.5	14.0	15.0
21	21.5	18.5	20.0	24.0	22.0	23.0	21.0	15.0	18.0	17.5	14.0	16.0
22	22.5	18.5	20.5	22.0	20.0	21.0	22.0	16.5	19.0	16.5	14.0	15.5
23	21.5	16.5	19.0	22.5	17.0	20.0	22.0	15.5	18.5	14.5	11.5	13.0
24	22.0	17.5	20.0	23.0	18.5	21.0	21.5	16.5	19.0	14.5	9.5	12.0
25	22.0	19.0	20.5	25.0	19.5	22.0	21.0	17.0	19.0	15.0	10.0	12.5
26	20.5	17.0	18.5	24.0	21.5	22.5	22.5	15.5	18.5	18.0	13.0	15.5
27	20.0	14.5	17.5	22.5	20.0	21.5	23.0	16.5	19.5	18.5	15.5	16.5
28	21.5	15.0	18.5	21.5	19.0	20.5	24.0	19.0	21.5	16.0	13.0	14.5
29	22.5	17.0	20.0	19.5	17.0	18.0	24.5	19.5	22.0	13.5	10.0	12.0
30	24.5	19.5	21.5	---	---	---	22.5	20.0	21.0	15.5	13.0	14.0
31	---	---	---	---	---	---	21.5	19.5	20.5	---	---	---
MONTH	24.5	11.5	18.5	27.0	17.0	21.5	24.5	14.5	20.0	23.0	9.5	17.0

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1							---	---	---	---	---	---
2							---	---	---	---	---	---
3							11.7	8.1	9.8	---	---	---
4							10.2	7.4	8.7	---	---	---
5							9.4	7.5	8.3	---	---	---
6							11.0	8.3	9.3	---	---	---
7							10.6	7.5	9.1	---	---	---
8							9.2	6.4	7.8	---	---	---
9							7.9	6.4	7.1	---	---	---
10							9.0	6.7	7.8	---	---	---
11							---	---	---	---	---	---
12							---	---	---	11.7	9.1	10.4
13							---	---	---	12.1	8.6	10.6
14							---	---	---	10.5	7.9	9.2
15							12.3	10.0	11.1	8.8	8.2	8.5
16							12.3	9.5	10.8	9.6	8.7	9.1
17							10.0	9.3	9.7	10.0	8.9	9.5
18							9.5	8.1	8.8	11.4	9.4	10.6
19							10.7	9.0	10.0	12.1	11.8	12.0
20							11.1	10.1	10.5	11.8	9.9	11.1
21							13.0	10.7	11.7	13.0	8.2	10.1
22							12.6	10.1	11.4	12.0	7.5	9.8
23							10.2	8.9	9.6	10.7	6.7	8.7
24							10.6	9.2	10.1	9.1	5.9	7.5
25							11.3	10.4	10.9	9.2	6.3	7.6
26							11.6	8.7	10.2	9.0	6.4	7.5
27							10.0	7.3	8.7	8.3	6.6	7.2
28							8.5	6.4	7.6	7.9	6.1	7.0
29							8.3	6.7	7.5	9.8	6.8	8.4
30							9.7	7.5	8.8	9.7	7.6	8.9
31							---	---	---	8.5	7.5	8.0
MONTH							13.0	6.4	9.4	13.0	5.9	9.1

03111585 ENLOW FORK NEAR WEST FINLEY, PA--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	9.4	7.8	8.6	9.4	8.4	8.8	---	---	---	8.8	7.6	8.2
2	10.2	8.1	8.9	9.2	7.8	8.6	---	---	---	8.0	7.3	7.7
3	9.1	8.1	8.6	8.9	7.2	8.2	---	---	---	7.8	7.4	7.6
4	8.5	7.7	8.2	8.3	6.6	7.6	---	---	---	7.9	7.3	7.7
5	9.1	7.9	8.6	7.8	6.9	7.4	---	---	---	8.3	7.3	7.7
6	9.1	7.9	8.6	8.3	6.6	7.5	---	---	---	9.0	7.6	8.3
7	9.0	7.2	8.1	8.0	6.4	7.1	---	---	---	10.1	8.2	9.1
8	9.0	7.1	8.0	8.1	6.4	7.2	9.1	7.8	8.4	9.7	8.5	9.0
9	7.5	6.5	7.1	8.5	6.4	7.4	9.2	7.8	8.3	10.5	9.0	9.6
10	8.3	7.0	7.8	8.6	6.7	7.3	9.2	7.5	8.3	11.0	8.9	10.0
11	9.1	7.7	8.4	8.9	6.9	7.8	9.0	7.4	8.1	10.9	8.1	9.6
12	8.5	6.6	7.7	9.2	6.7	7.9	8.8	7.3	8.0	10.3	7.6	8.9
13	7.8	6.8	7.2	8.2	7.0	7.6	9.9	7.6	8.7	10.1	7.4	8.7
14	7.7	6.9	7.3	8.4	7.3	7.8	9.7	7.6	8.6	9.9	7.4	8.4
15	9.5	7.3	8.3	9.4	7.6	8.4	8.5	7.2	7.9	8.4	8.0	8.1
16	9.2	7.3	8.4	9.1	7.4	8.1	8.2	7.1	7.5	9.7	7.9	8.6
17	8.8	7.7	8.2	9.1	6.9	8.0	8.7	7.2	7.9	8.7	7.9	8.2
18	9.7	7.5	8.8	9.2	7.0	8.0	9.1	7.3	8.2	9.5	8.1	8.6
19	9.0	7.5	8.3	9.4	7.1	8.2	11.3	7.5	9.0	8.7	7.5	8.1
20	8.3	7.1	7.7	8.8	7.1	7.7	10.7	8.8	9.7	8.4	7.1	7.7
21	8.7	7.2	8.0	8.1	7.2	7.5	11.0	8.7	9.8	9.4	7.1	8.2
22	8.4	7.2	7.8	8.5	7.4	8.0	10.5	8.5	9.3	8.1	7.3	7.8
23	8.9	7.6	8.3	9.2	7.7	8.5	10.3	8.2	9.2	9.7	7.9	8.8
24	9.2	7.4	8.3	9.7	7.7	8.4	10.3	8.1	9.2	10.8	8.9	9.8
25	7.5	6.4	7.0	9.4	7.3	8.3	10.0	8.3	9.1	11.4	8.8	10.1
26	7.6	6.6	7.1	8.3	6.6	7.4	10.0	8.3	9.3	11.0	8.4	9.6
27	8.5	6.9	7.7	8.6	6.7	7.6	9.9	7.6	8.8	10.4	8.2	9.1
28	8.4	6.6	7.5	8.5	7.6	8.2	9.4	7.4	8.3	10.8	8.5	9.6
29	8.3	6.2	7.2	8.6	7.9	8.3	8.9	7.0	8.0	11.8	9.3	10.4
30	10.4	6.4	7.7	---	---	---	8.4	7.6	7.8	10.8	8.6	9.6
31	---	---	---	---	---	---	9.2	8.1	8.5	---	---	---
MONTH	10.4	6.2	8.0	9.7	6.4	7.9	11.3	7.0	8.6	11.8	7.1	8.8

SEDIMENT DISCHARGE, SUSPENDED (TON/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	.71	30	.06	.94	6	.02	8.5	65	1.5
2	.71	25	.05	.94	7	.02	8.5	60	1.4
3	.80	19	.04	.94	10	.03	8.5	55	1.3
4	.94	17	.04	1.1	10	.03	6.5	60	1.1
5	.71	15	.03	1.3	9	.03	5.0	70	.95
6	.80	12	.03	.80	9	.02	5.0	78	1.1
7	.71	13	.02	.80	8	.02	6.5	105	1.8
8	.80	17	.04	1.3	9	.03	7.4	120	2.4
9	.71	20	.04	1.7	9	.04	19	135	6.0
10	.63	22	.04	1.5	10	.04	20	100	5.4
11	.71	24	.05	1.5	9	.04	12	60	1.9
12	.56	25	.04	1.3	9	.03	8.5	50	1.1
13	.80	26	.06	1.1	15	.04	7.0	40	.76
14	.71	26	.05	1.1	14	.04	5.6	40	.60
15	.71	28	.05	1.1	13	.04	4.0	35	.38
16	.94	36	.09	1.1	12	.04	4.4	33	.39
17	.71	36	.07	8.5	204	17	3.2	30	.26
18	.80	50	.11	21	630	36	2.9	30	.23
19	.80	60	.13	8.3	505	11	2.6	28	.20
20	.71	70	.13	4.6	290	3.6	2.3	28	.17
21	.80	74	.16	3.2	140	1.2	2.2	29	.17
22	.71	60	.12	2.6	175	1.2	2.0	28	.15
23	.71	50	.10	2.0	240	1.3	1.9	26	.13
24	.71	31	.06	21	411	27	1.8	25	.12
25	9.3	259	6.5	17	120	5.5	1.8	25	.12
26	5.0	80	1.1	8.3	75	1.7	2.8	23	.17
27	2.3	23	.14	10	130	3.5	1.5	20	.08
28	1.7	13	.06	13	155	5.4	1.6	15	.06
29	1.5	8	.03	12	110	3.6	1.7	13	.06
30	1.1	7	.02	9.0	70	1.7	1.8	12	.06
31	.94	7	.02	---	---	---	1.9	10	.05
TOTAL	39.74	---	9.48	159.02	---	120.21	168.4	---	31.01

03111585 ENLOW FORK NEAR WEST FINLEY, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	11	1	.03	60	32	5.2	78	40	8.4
2	10	1	.03	437	670	791	64	25	4.3
3	9.4	1	.03	80	40	8.6	52	23	3.2
4	9.0	1	.02	66	38	6.8	47	22	2.8
5	8.4	1	.02	58	36	5.6	88	65	15
6	8.2	1	.02	46	33	4.1	85	38	8.7
7	7.8	1	.02	38	30	3.1	66	24	4.3
8	7.6	1	.02	36	27	2.6	54	22	3.2
9	8.0	1	.02	46	25	3.1	48	22	2.9
10	8.6	1	.02	60	20	3.2	45	20	2.4
11	9.6	1	.03	150	140	57	42	16	1.8
12	11	1	.03	70	70	13	36	12	1.2
13	12	2	.06	62	25	4.2	33	10	.89
14	14	2	.08	54	15	2.2	29	9	.70
15	11	2	.06	50	11	1.5	27	8	.58
16	9.2	2	.05	78	19	4.0	71	50	9.6
17	8.2	1	.02	159	100	43	63	22	3.7
18	7.2	1	.02	155	82	34	53	18	2.6
19	6.4	1	.02	138	75	28	47	13	1.6
20	6.2	1	.02	316	625	624	42	11	1.2
21	7.4	1	.02	255	205	141	39	9	.95
22	8.4	1	.02	147	82	33	38	9	.92
23	9.8	1	.03	346	667	885	38	7	.72
24	11	1	.03	260	220	154	35	7	.66
25	16	7	.30	144	130	51	33	6	.53
26	72	50	9.7	97	53	14	30	5	.41
27	56	13	2.0	71	25	4.8	39	13	1.4
28	40	8	.85	80	63	14	32	11	.95
29	31	5	.42	---	---	---	32	9	.78
30	30	1	.08	---	---	---	34	7	.64
31	36	4	.39	---	---	---	29	6	.47
TOTAL	500.4	---	14.47	3559	---	2941.0	1449	---	87.50

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	28	6	.45	60	26	4.2	98	55	15
2	25	6	.41	48	24	3.1	66	21	3.7
3	23	6	.37	39	23	2.4	88	138	40
4	22	6	.36	34	21	1.9	231	440	495
5	28	29	2.2	30	16	1.3	410	688	1300
6	23	18	1.1	34	25	2.3	495	318	476
7	21	14	.79	27	20	1.5	213	158	112
8	20	13	.70	22	15	.89	102	48	13
9	26	26	1.8	19	11	.56	124	126	45
10	26	35	2.5	22	15	.89	245	272	180
11	78	217	196	46	62	7.7	153	97	40
12	1050	2150	7510	39	17	1.8	86	34	7.9
13	607	425	898	30	13	1.1	109	68	20
14	303	149	123	27	12	.87	436	1270	1500
15	195	66	35	67	48	8.7	130	105	37
16	128	46	16	51	18	2.5	79	97	26
17	108	53	15	39	16	1.7	63	52	8.8
18	126	208	71	33	14	1.2	32	20	1.7
19	91	53	13	34	13	1.2	23	19	1.2
20	75	27	5.5	29	10	.78	20	20	1.1
21	56	19	2.9	23	10	.62	22	63	3.7
22	48	10	1.3	20	12	.65	44	153	18
23	94	73	19	17	12	.55	20	63	3.4
24	106	41	12	14	11	.42	15	30	1.2
25	91	26	6.4	13	11	.39	55	167	34
26	75	22	4.5	12	12	.39	31	63	5.3
27	85	41	9.4	14	15	.57	18	38	1.8
28	103	98	27	136	556	573	15	23	.93
29	94	38	9.6	186	143	97	14	22	.83
30	72	28	5.4	135	224	263	56	330	292
31	---	---	---	220	195	165	---	---	---
TOTAL	3827	---	8990.68	1520	---	1148.18	3493	---	4684.56

03111585 ENLOW FORK NEAR WEST FINLEY, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	161	246	185	37	19	1.9	19	42	2.2
2	50	54	7.3	28	16	1.2	22	46	2.7
3	28	39	2.9	25	11	.74	112	321	120
4	23	33	2.0	56	125	27	98	91	24
5	22	30	1.8	28	28	2.1	41	37	4.1
6	20	21	1.1	22	17	1.0	20	26	1.4
7	16	25	1.1	19	10	.51	13	20	.70
8	15	30	1.2	16	9	.39	17	23	1.1
9	14	20	.76	12	8	.26	14	17	.64
10	12	15	.49	11	5	.15	9.5	13	.33
11	10	12	.32	9.0	4	.10	7.0	12	.23
12	9.5	11	.28	8.5	4	.09	7.1	11	.21
13	26	80	5.6	7.5	3	.06	6.5	10	.18
14	18	60	2.9	7.0	3	.06	5.5	11	.16
15	12	32	1.0	7.5	2	.04	18	25	1.2
16	10	13	.35	11	6	.18	11	22	.65
17	11	12	.36	7.0	5	.09	19	56	2.9
18	8.5	11	.25	6.0	3	.05	16	31	1.3
19	7.0	10	.19	5.0	1	.01	30	40	3.2
20	19	72	3.7	4.6	1	.01	16	5	.22
21	28	136	10	4.2	1	.01	12	1	.03
22	20	93	5.0	4.2	1	.01	8.5	1	.02
23	12	50	1.6	3.4	1	.00	8.0	1	.02
24	10	44	1.2	3.4	1	.00	7.2	1	.02
25	9.5	42	1.1	3.4	2	.02	6.5	1	.02
26	32	403	102	3.4	3	.03	5.9	1	.02
27	157	509	418	3.0	2	.02	6.0	1	.02
28	622	1060	3400	2.6	1	.00	5.0	1	.01
29	416	193	310	3.0	1	.00	4.6	1	.01
30	123	48	16	20	74	4.0	4.6	1	.01
31	62	23	3.9	14	57	2.2	---	---	---
TOTAL	1983.5	---	4487.40	391.7	---	42.23	569.9	---	167.60
YEAR	19643.7		22810.10						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, JUNE 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
JUN 04...	1600	545	18.0	1100	1620	41	57

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
JUN 04...	73	84	91	96	98	100

04213000 CONNEAUT CREEK AT CONNEAUT, OH

LOCATION.--Lat 41°55'37", long 80°36'15", Ashtabula County, Hydrologic Unit 04120101, on right bank at downstream side of Keefus Road bridge at Conneaut, and 6.4 mi (10.3 km) upstream from mouth.

DRAINAGE AREA.--175 mi^2 (453 km^2).

PERIOD OF RECORD.--July 1922 to December 1935, March 1950 to September 1961 (published as "at Amboy"), October 1961 to current year.

REVISED RECORDS.--WSP 714: 1926. WSP 784: 1933. WSP 1437: 1923-25(M), 1926-30, 1931-32(M), 1933, 1935(M). WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 610.30 ft (186.019 m) National Geodetic Vertical Datum of 1929, unadjusted. Prior to Aug. 17, 1924, nonrecording gage at same site and datum.

REMARKS.--Records good except those for the winter periods, which are fair. Water-quality data collected at this site 1965 to 1977. Sediment data collected 1970 to 1974.

AVERAGE DISCHARGE.--44 years, 265 ft^3/s (7.505 m^3/s), 20.57 in/yr (522 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft^3/s (481 m^3/s) Jan. 22 1959, gage height, 11.70 ft (3.566 m); maximum gage height, 12.94 ft (3.944 m) Mar. 4, 1934 (backwater from ice); minimum discharge, 0.2 ft^3/s (0.006 m^3/s) July 31, Aug. 1, 1933, Aug. 1, 2, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft^3/s (82.1 m^3/s) and maximums (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)			(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 3	---	3100	87.8	ice jam		Apr. 29	2100	*9540	270	9.55	2.911
Feb. 18	1700	ice jam		*11.87	3.618	June 10	1500	3320	94.0	6.41	1.954
Feb. 20	1300	8160	231	8.86	2.701						

Minimum daily discharge, 32 ft^3/s (0.91 m^3/s) June 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	110	521	225	130	258	365	599	35	44	81	42
2	44	89	992	202	600	241	231	299	33	44	52	51
3	44	76	1280	177	2500	207	188	222	32	43	40	800
4	62	71	595	160	900	181	148	183	91	43	38	985
5	68	68	299	150	270	167	395	153	225	43	38	688
6	47	77	229	130	220	177	702	155	132	43	39	323
7	42	76	266	120	170	171	318	222	63	44	217	286
8	38	89	425	110	150	157	207	204	41	44	894	196
9	38	118	1040	100	120	148	174	132	612	43	683	168
10	38	125	832	100	100	155	150	94	2590	43	510	148
11	40	177	419	95	450	171	134	102	498	43	330	92
12	43	151	268	90	1900	181	164	123	175	42	396	67
13	211	113	232	90	800	169	277	148	116	42	184	54
14	258	97	256	90	350	175	833	128	99	42	97	46
15	130	111	171	90	150	149	1880	113	126	43	136	47
16	86	137	150	90	400	142	573	248	175	43	686	85
17	67	111	120	95	800	220	290	357	118	43	432	65
18	59	96	116	100	2000	183	424	225	89	43	168	49
19	55	89	94	100	4000	166	400	125	66	42	92	43
20	118	96	64	110	7370	158	243	100	53	45	64	39
21	291	105	58	110	2720	155	195	80	46	46	49	37
22	198	116	56	120	938	153	158	66	220	45	41	54
23	120	153	54	100	800	196	308	52	289	44	39	50
24	83	144	54	95	1660	613	1190	47	150	44	39	57
25	121	689	52	85	795	924	784	44	84	44	40	48
26	1040	671	52	80	406	576	440	38	62	57	42	41
27	992	366	52	80	281	682	265	36	51	43	43	38
28	354	360	52	300	232	715	716	46	43	74	43	37
29	273	517	52	700	---	310	5580	48	41	837	43	38
30	202	473	100	300	---	231	4460	47	42	546	43	37
31	142	---	207	190	---	395	---	41	---	163	43	---
TOTAL	5347	5671	9158	4584	31212	8526	22192	4477	6397	2805	5644	4711
MEAN	172	189	295	148	1115	275	740	144	213	90.5	182	157
MAX	1040	689	1280	700	7370	924	5580	599	2590	837	894	985
MIN	38	68	52	80	100	142	134	36	32	42	38	37
CFSM	.98	1.08	1.69	.85	6.37	1.57	4.23	.82	1.22	.52	1.04	.90
IN.	1.14	1.21	1.95	.97	6.63	1.81	4.72	.95	1.36	.60	1.20	1.00

CAL YR 1980 TOTAL 97138 MEAN 265 MAX 2660 MIN 32 CFSM 1.51 IN 20.65
WTR YR 1981 TOTAL 110724 MEAN 303 MAX 7370 MIN 32 CFSM 1.73 IN 23.54

04213040 RACCOON CREEK NEAR WEST SPRINGFIELD, PA

LOCATION.--Lat 41°56'42", long 80°26'51", Erie County, Hydrologic Unit 04120101, on right bank 12 ft (3 m) upstream from highway bridge on Sanford Road, 1.4 mi (2.2 km) east of West Springfield, 4.4 mi (7.1 km) upstream from mouth, and 7 mi (11 km) southwest of Girard.

DRAINAGE AREA.--2.53 mi^2 (6.55 km^2).

PERIOD OF RECORD.--Annual maximum, water years 1962-68. October 1968 to current year.

REVISED RECORD.--WDR PA-74-1: 1973.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control installed Aug. 2, 1973. Altitude of gage is 715 ft (218 m), from topographic map. May 9, 1961, to Oct. 2, 1968, crest-stage gage at same site and datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 3.68 ft^3/s (0.104 m^3/s), 19.75 in/yr (502 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 408 ft^3/s (11.6 m^3/s) Dec. 28, 1968, gage height, 6.06 ft (1.847 m), from rating curve extended above 76 ft^3/s (2.2 m^3/s) on basis of computation of flow through culvert at gage height 5.39 ft (1.643 m); no flow on many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50 ft^3/s (1.42 m^3/s) Apr. 29, gage height, 2.76 ft (0.841 m), no peak above base of 100 ft^3/s (2.83 m^3/s); minimum daily, 0.07 ft^3/s (0.020 m^3/s) Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	.62	8.0	1.1	.66	2.5	2.5	11	.52	1.3	.62	.13
2	.25	.48	2.1	1.0	1.1	2.1	1.7	5.0	.40	.41	.52	.16
3	.29	.43	4.9	.92	2.0	1.6	1.1	2.0	1.3	.40	.58	.32
4	.55	.43	5.0	.86	2.7	1.3	.80	1.3	8.2	.60	.62	.71
5	3.7	.70	3.5	.80	2.1	1.0	3.5	.84	3.0	2.0	.43	.37
6	3.4	.96	2.6	.76	1.5	.90	3.5	16	1.0	1.0	.36	1.3
7	2.5	.48	2.0	.74	1.1	.80	2.7	8.0	.48	.52	1.0	.63
8	1.9	.60	1.6	.74	.74	.63	1.9	3.7	.50	.46	2.5	1.3
9	2.3	.80	3.2	.72	.56	.63	1.3	1.7	3.9	.43	1.6	.63
10	1.7	1.2	6.2	.72	.47	.63	.90	.80	1.1	.40	.27	.23
11	1.5	1.8	4.0	.70	1.0	.80	.71	1.3	3.0	.38	1.9	.15
12	3.7	1.3	2.5	.70	2.0	1.1	3.5	2.2	1.0	.35	1.4	.13
13	8.0	1.1	1.7	.68	4.2	1.5	11	3.2	.62	.33	.80	.09
14	8.3	1.3	2.4	.68	3.0	.90	48	.84	3.0	.31	.46	.09
15	5.0	1.8	2.0	.66	2.8	.63	16	2.1	12	.29	1.2	.13
16	2.5	2.4	1.6	.66	2.1	2.1	2.0	17	4.0	.28	2.2	.07
17	1.2	1.3	1.3	.68	5.0	1.4	19	18	2.1	.27	1.3	.17
18	.54	1.1	1.1	.70	11	.90	18	9.0	1.3	.27	.90	.15
19	2.8	1.1	1.0	.70	25	.55	7.0	4.5	.90	.16	.70	.15
20	12	1.1	1.0	.68	32	.55	3.4	2.9	.60	.15	.54	.17
21	7.8	1.1	1.2	.68	18	.49	1.6	2.1	.46	.48	.48	.13
22	3.0	1.2	1.4	.68	9.6	.63	.80	1.6	1.2	.40	.42	.63
23	1.0	1.9	1.2	.70	9.2	1.3	3.5	1.3	2.6	.35	.37	.32
24	.55	2.1	1.0	.70	13	2.9	20	.94	1.7	.30	.32	.20
25	1.6	6.9	.86	.76	8.0	3.3	19	.74	1.2	.27	.19	.17
26	7.1	19	.94	1.2	4.9	2.9	5.0	.54	.90	.35	.16	.17
27	4.5	5.2	1.0	1.7	3.3	3.1	1.3	.43	.70	.32	.23	.20
28	2.3	2.5	.88	1.8	2.7	2.7	7.0	9.2	.54	2.9	.20	.37
29	2.1	4.5	.80	1.4	---	2.1	48	4.5	.46	1.8	.19	.49
30	1.1	11	1.0	1.1	---	1.9	23	2.0	1.1	1.3	.17	.55
31	.79	---	1.2	.84	---	3.1	---	1.1	---	.80	.15	---
TOTAL	94.16	76.40	69.16	26.76	169.73	46.94	277.71	135.83	59.78	19.58	22.78	10.31
MEAN	3.04	2.55	2.23	.86	6.06	1.51	9.26	4.38	1.99	.63	.73	.34
MAX	12	19	8.0	1.8	32	3.3	48	18	12	2.9	2.5	1.3
MIN	.19	.43	.80	.66	.47	.49	.71	.43	.40	.15	.15	.07
CFSM	1.20	1.01	.88	.34	2.40	.60	3.66	1.73	.79	.25	.29	.13
IN.	1.38	1.12	1.02	.39	2.49	.69	4.08	2.00	.88	.29	.33	.15

CAL YR 1980 TOTAL 832.41 MEAN 2.27 MAX 20 MIN .14 CFSM .90 IN 12.23
WTR YR 1981 TOTAL 1009.16 MEAN 2.76 MAX 48 MIN .07 CFSM 1.09 IN 14.83

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usuable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements when correlated with the simultaneous discharge of a nearby stream when continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1981

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Tionesta Creek basin				
*03017800	Minister Creek near Truemans, Pa.	Lat 41°37'17", long 79°09'12", Forest County, in Allegheny National Forest, at bridge on State Highway 666, 0.4 mile above mouth, and 1 mile west of Truemans.	10.8	1970-81	3-26-81 8-13-81	13.1 9.1
		Clarion River basin				
03029170	Little Toby Creek at Portland Mills, Pa.	Lat 41°21'53", long 78°49'22", Elk County, at railroad bridge 0.1 mi above State Highway 949 and 0.8 mi south of Portland Mills.	126	1972-81	3-24-81 8-11-81	137 102
*03029200	Clear Creek near Sigel, Pa.	Lat 41°19'17", long 79°04'39", Jefferson County, at bridge on State Highway 949 in Clear Creek State Park, 1,500 ft upstream from Phyllis Run, and 1.4 miles northeast of Sigel.	8.67	1971-81	3-24-81 8-11-81	8.5 3.4
03030600	Piney Creek at Piney, Pa.	Lat 41°10'12", long 79°28'20", Clarion County, at bridge on State Highway 854 at Piney, 0.1 mile above mouth, and 4 miles northwest of Reidsburg.	72.2	1933 1970-81	3-28-81 8-14-81	101 19.2
		Kiskiminetas River basin				
03045300	McCune Run at Keystone State Park, Pa.	Lat 40°22'26", long 79°22'25", Westmoreland County, at culvert in Keystone State Park, 200 ft above head of Keystone Lake, and 3 miles southeast of New Alexandria.	1.73	1970-81	3-27-81 8- 8-81	3.3 0.46
		Pine Creek basin				
03049810	Pine Creek at Etna, Pa.	Lat 40°29'42", long 79°56'26", Allegheny County, at highway bridge on ramp leading to 62nd Street Bridge at Etna and 0.8 mile above mouth.	66.8	1950-52 1970-81	3-21-81 8-15-81	65.5 12.1
		Monongahela River basin				
03079600	Laurel Hill Creek near Bakersville, Pa.	Lat 40°00'32", long 79°14'04", Somerset County, at bridge at head of Laurel Lake, 2.3 miles southwest of Bakersville, and 3.3 miles below Kooser Run.	38.2	1970-81	8-26-81	3.3
03083100	Jacobs Creek at Jacobs Creek, Pa.	Lat 40°07'23", long 79°44'14", Westmoreland County, 0.3 mile above highway bridge at Jacobs Creek, and 0.4 mile above mouth.	94.9	1950 1965-67 1970-81	3-23-81 8-10-81	118 13.5

* Also a crest stage partial-record station

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Date	Gage height (feet)	Discharge (ft³/s)
		Conewango Creek basin					
03015080	Akeley Run near Russell, Pa.	Lat 41°55'55", long 79°05'38", Warren County, at highway bridge 1.1 miles upstream from Middlefield Run, and 2.5 miles east of Russell. Datum of gage is 1,367.84 ft National Geodetic Vertical Datum of 1929.	9.64	1962-81	10-25-80	2.02	565
		Brokenstraw Creek basin					
03015390	Hare Creek near Corry, Pa.	Lat 41°56'29", long 79°38'41", Erie County, at concrete dam of Corry Water Co., 1.1 miles above Bear Creek, and 1.5 miles north of Corry.	12.3	1964-81	2-20-81	5.63	744
		Tionesta Creek basin					
*03017800	Minister Creek near Truemans, Pa.	Lat 41°37'17", long 79°09'12", Forest County, in Allegheny National Forest, at bridge at State Highway 666, 0.4 mile above mouth, and 1 mile west of Truemans.	10.8	1961-81	6-15-81	3.78	604
		Oil Creek basin					
03020440	West Branch Caldwell Creek near Grand Valley, Pa.	Lat 41°45'31", long 79°34'08" Warren County, at bridge 2 miles above Three Bridge Run, and 3 miles northwest of Grand Valley.	4.37	1964-81	10-26-80	7.99	238
		Richey Run basin					
03026400	Richey Run at Emlenton, Pa.	Lat 41°10'53", long 79°41'25", Clarion County, at highway bridge 1 mile east of Emlenton, and 1.2 miles above mouth.	5.88	1963-81	2-16-81	2.34	323
		Clarion River basin					
*03029200	Clear Creek near Sigel, Pa.	Lat 41°19'17", long 79°04'39", Jefferson County, at bridge on State Highway 949, in Clear Creek State Park, 1,500 ft above Phyllis Run and 4 miles northeast of Sigel.	8.67	1960-81	6- 9-81	8.99	1,980

* Also low-flow partial-record station.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (feet)	Discharge (ft^3/s)
		Redbank Creek basin					
03031780	Mill Creek near Brockway, Pa.	Lat 41°14'53", long 78°50'08", Jefferson County, at culvert on State Highway 28, and 2 miles west of Brockway.	2.12	1965-81	2-20-81	4.95	88
		Buffalo Creek basin					
03049100	Little Buffalo Creek at Cabot, Pa.	Lat 40°45'57", long 79°46'01", Butler County, at highway bridge at Cabot, 500 ft above main bridge, and 3.5 miles above Sarver run.	4.66	1959-81	2- 2-81	3.05	70
		Monongahela River basin					
03072880	Browns Creek near Nineveh, Pa.	Lat 39°56'27", long 80°17'21", Greene County, at highway bridge just below Patterson Run 1.8 miles southeast of Nineveh. Datum of gage is 975.60 ft National Geodetic Vertical Datum of 1929.	17.5	1963-81	4-13-81	11.37	2,630
03083600	Gillespie Run near Sutersville, Pa.	Lat 40°13'59", long 79°49'06", Allegheny County, at upstream highway bridge at Mustard 0.4 mile above mouth, and 0.7 mile west of Sutersville.	4.04	1959-81	5-11-81	2.50	185
		Streams tributary to Lake Erie					
04213200	Mill Creek at Erie, Pa.	Lat 42°05'54", long 80°04'35", Erie County, at bridge on West 38th Street, 100 ft west of State Highway 505, at Erie.	9.16	1964-81	4-28-81	11.55	880

Discharge measurements made at miscellaneous sites during water year 1981

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Ohio River basin				
Allegheny River	Ohio River	Lat 41°54'05", long 78°23'05", McKean County, at single span steel highway bridge on U. S. Highway 6 at Larabee, 1.0 mi below mouth of Potato Creek and 3.5 mi south of Eldred.	530	1920-39≠	8-25-81	112
		Allegheny River basin				
Browns Run	Allegheny River	Lat 41°49'21", long 79°06'33", Warren County, at site 300 ft below Morrison Run and 0.5 mi southeast of Warren borough.	24.1	1970-79	8-26-81	0.85
		Conewango Creek basin				
Jackson Run	Conewango Creek	Lat 41°54'10", long 79°14'18", Warren County, on right bank at downstream side of highway bridge on Creamery Road, 0.6 mi upstream from Mud River and 5 mi northwest of North Warren.	12.8	1963-79≠	8-26-81	2.7
		Allegheny River basin				
West Hickory Creek	Allegheny River	Lat 41°32'32", long 79°26'20", Forrest County, at highway bridge 1.5 mi above mouth and 1.6 mi northwest of West Hickory.	18.0	1970-79	8-26-81	6.3
Tionesta Creek	Allegheny River	Lat 41°36'07", long 79°03'01", Forest County, in Allegheny National Forest, on left bank at downstream side of highway bridge at Lynch, 500 ft upstream from Bluejay Creek and 7 mi south of Sheffield.	233	1939-79≠	8-26-81	56.4
		Oil Creek basin				
Cherry Run	Oil Creek	Lat 41°28'13", long 79°41'17", Venango County, 0.4 mi upstream from mouth along State Highway 227 at Rouseville.	12.8	-	6-15-81	[a]1,340
		French Creek basin				
West Branch French Creek	French Creek	Lat 42°06'08", long 79°49'20", Erie County, at bridge on State Highway 89, 2.4 mi southeast of Hornby and 10 mi above mouth.	43.7	1970-79	8-26-81	6.8
Cussewago Creek	French Creek	Lat 41°49'52", long 80°14'28", Crawford County, at highway bridge at Crossingville and 0.3 mi above West Branch.	12.6	1970-79	8-25-81	1.0
Sugar Creek	French Creek	Lat 41°25'43", long 79°52'48", Venango County, on left bank at downstream side of highway bridge, 0.8 mi north of Sugarcreek, 0.9 mi upstream from mouth and 3 mi northwest of Franklin.	166	1934-79≠	8-25-81	79.0
		Allegheny River basin				
Lower Twomile Run	Allegheny River	Lat41°22'44", long 79°41'16", Venango County, 1.1 mi upstream from mouth.	10.8	-	6-15-81	[a]6,540
		Clarion River basin				
Elk Creek	Clarion River	Lat 41°25'31", long 78°43'38", Elk County, at bridge on State Highway 120 at Ridgway and 0.6 mi above mouth.	61.2	1970-79	8-25-81	20.5
		Allegheny River basin				
Clarion River	Allegheny River	Lat 41°25'15", long 78°44'10", Elk County, at bridge on State Highway 948 in Ridgway, 50 ft downstream from Elk Creek.	303	1940-53≠ 1954-81	10-23-80 12- 8-80 3- 6-81 4-20-81 6- 9-81 6-16-81 8-27-81	127 1,030 596 943 3,710 801 204

≠ Operated as a continuous record station.

[a] Peak flow

Discharge measurements made at miscellaneous sites during water year 1981--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Allegheny River basin				
Clarion River	Allegheny River	Lat 41°07'47", long 79°33'18", Clarion County, at bridge on State Highway 58 at Callensburg and 0.3 mi above Licking Creek.	1,163	1970-72≠ 1979-81	11-14-80 12-19-80 3-12-81 5- 1-81 6-18-81 8-31-81	169 241 268 8,760 5,150 113
		Sandy Lick Creek basin				
Laborde Branch	Sandy Lick Creek	Lat 41°06'18", long 78°42'51", Clearfield County, at highway bridge, 0.6 mi downstream from Lutherburg Branch and 2 mi east of Maple Street Hospital in DuBois.	15.0	1971-79	8-25-81	1.3
		Little Sandy Creek basin				
Big Run	Little Sandy Creek	Lat 40°59'30", long 79°05'26", Jefferson County, on right bank at downstream side of highway bridge, 0.5 mi downstream from McCracken Run and 1.3 mi southeast of Sprankle Mills.	7.4	1963-81≠	8-25-81	1.5
		Allegheny River basin				
Bull Creek	Allegheny River	Lat 40°36'54", long 79°45'36", Allegheny County, at bridge on dirt road, 0.3 mi above Little Bull Creek and 0.9 mi north of Tarentum.	36.8	1970-79	8-25-81	2.6
		Tenmile Creek basin				
Daniels Run	Tenmile Creek	Lat 40°01'37", long 80°05'26", Washington County, at Penn Central Railroad Bridge, 0.2 mi above mouth and 0.5 mi northeast of Marianna.	17.3	1948-51 1970-79	8-26-81	3.3
		Monongahela River basin				
Tenmile Creek	Monongahela River	Lat 39°59'51", long 80°02'31", Greene County, near center, on upstream side of single-span steel-truss bridge, 1.5 mi north of Clarksville and 2.3 mi upstream from South Fork Tenmile Creek.	133	1968-79≠	8-26-81	13.6
		Redstone Creek basin				
Lick Run	Redstone Creek	Lat 39°52'04", long 79°41'40", Fayette County, on left bank of southeast edge of Hopwood, along road leading to Lick Hollow picnic area in Forbes State Forest, 0.4 mi upstream from road leading south from Hopwood to Fairchance and 1.5 mi upstream from Bennington Spring Run.	3.8	1966-78≠	8-26-81	0.14
		Monongahela River basin				
Peters Creek	Monongahela River	Lat 40°17'31", long 79°54'56", Allegheny County, at bridge on State Highway 51 at Large and 3 mi above mouth.	42.6	1966-67 1970-79	8-25-81	21.2
		Casselman River basin				
Laurel Hill Creek	Casselman River	Lat 40°00'32", long 78°14'04", Somerset County, at bridge at head of Laurel Lake, 2.3 mi southwest of Bakersville and 3.3 mi below Kooser Run.	38.2	1970-79	8-26-81	3.3
		Ohio River basin				
Montour Run	Ohio River	Lat40°28'00", long 80°09'23", Allegheny County, at highway bridge, 1.1 mi below Trout Run and 2.8 mi south of Coraopolis.	29.4	1944, 1946 1948-49 1951-53 1955	8-25-81	4.1
		Neshannock Creek basin				
Otter Creek	Neshannock Creek	Lat 41°13'34", long 80°13'28", Mercer County, at bridge on Legislative Route 43027, 400 ft upstream from Cool Spring Creek and 0.8 mi east of Mercer.	48.7	1946	8-26-81	2.1
		Little Neshannock Creek basin				
Harthegig Run	Little Neshannock Creek	Lat 41°11'10", long 80°19'38", Mercer County, on right bank at upstream end of wingall of culvert on Legislative Route 43010 overpass of U. S. Interstate Highway 80, 1.3 mi upstream from mouth, 2 mi southeast of Greenfield and 6 mi southwest of Mercer.	2.3	1968-81≠	8-26-81	0.10

≠ Operated as a continuous record station.

Discharge measurements made at miscellaneous sites during water year 1981--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Connoquenessing Creek basin				
Slippery Rock Creek	Connoquenessing Creek	Lat 41°03'05", long 79°58'50", Butler County, about 150 ft below Keisters Falls, about 500 ft below Bessimer Railroad Bridge, 0.5 mi upstream from Long Run and about 0.2 mi downstream from Keisters.	13.2	1946	8-25-81	16.0
		Little Beaver Creek basin				
North Fork Little Beaver Creek	Little Beaver Creek	Lat 40°48'22", long 80°25'22", Beaver County, at bridge on State Highway 551 at Darlington and 12 mi below Honey Creek.	88.7	1949-51 1970-79	8-25-81	10.0
		Lake Erie basin				
Elk Creek	Lake Erie	Lat 42°00'20", long 80°21'15", Erie County, at single-span steel-truss bridge on Elk Park Road, 0.8 mi southwest of North Girard and 15 mi southwest of Erie.	96.7	1951	8-25-81	12.7
Mill Creek	Lake Erie	Lat 42°05'54", long 80°04'35", Erie County, at bridge on West 38th Street, 100 ft west of State Highway 505 at Erie.	9.16	1944-57 1964-80*	8-26-81	1.7

* Also a crest stage partial-record station.

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Water-quality partial-record stations are particular sites where chemical-quality, biological and or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
ALLEGHENY PORTAGE CREEK BASIN										
03006800 - SCAFFOLD LICK RN NR NORWICH, PA (LAT 41 42 06 LONG 078 16 31)										
MAR , 1981										
25...	0910	3.4	88	4.6	2.5	<.1	--	<1	28	59
AUG										
10...	1145	2.2	87	4.3	19.5	.2	10	--	24	52
03007700 - SKINNER C AT PORT ALLEGANY, PA (LAT 41 48 10 LONG 078 17 08)										
MAR , 1981										
25...	1025	11	56	6.2	3.5	--	--	6	9.0	36
AUG										
10...	1245	3.4	115	7.6	22.0	--	--	39	11	68
POTATO CREEK BASIN										
03008900 - HAVENS RN AT NORWICH, PA (LAT 41 39 12 LONG 078 21 43)										
MAR , 1981										
25...	1500	2.6	53	7.5	5.0	--	--	9	7.1	41
AUG										
13...	1030	4.7	51	6.8	12.0	--	--	7	7.5	35
03009005 - W BR POTATO C AT BETULA, PA (LAT 41 40 16 LONG 078 24 00)										
MAR , 1981										
25...	1400	9.7	50	6.6	4.0	--	--	6	9.1	28
AUG										
13...	1000	4.9	52	7.1	15.5	--	--	11	7.5	33
03009009 - RED MILL BROOK AT HAMLIN STATION, PA (LAT 41 42 39 LONG 078 23 43)										
MAR , 1981										
25...	1315	10	69	7.5	5.0	--	--	4	19	38
AUG										
13...	0910	2.3	100	6.6	15.0	--	--	9	26	68
03009100 - ROBBINS BK AT CROSBY, PA (LAT 41 44 10 LONG 078 23 34)										
MAR , 1981										
25...	1240	8.0	<50	6.7	4.0	--	--	5	8.4	24
AUG										
13...	0830	1.8	53	6.9	14.5	--	--	11	6.7	31
03009678 - MARVIN RN AT SMETHPORT, PA (LAT 41 48 25 LONG 078 27 08)										
MAR , 1981										
25...	1140	49	75	7.2	4.0	--	--	13	10	45
AUG										
10...	1345	6.7	90	7.2	23.0	--	--	16	8.6	49
TUNUNGWANT CREEK BASIN										
03010948 - EAST BRANCH TUNUNGWANT CREEK AT LEWIS RUN, PA (LAT 41 52 22 LONG 078 39 22)										
MAR , 1981										
23...	1330	25	177	7.0	5.0	.1	5.0	36	10	92
AUG										
10...	1500	1.2	245	7.6	20.5	--	--	52	6.1	139
03010951 - MINARD RN AT CUSTER CITY, PA (LAT 41 54 40 LONG 078 38 33)										
MAR , 1981										
23...	1235	9.1	360	7.2	5.0	--	--	33	11	199
AUG										
10...	1545	2.2	1000	8.8	24.5	--	--	52	9.3	602

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
ALLEGHENY PORTAGE CREEK BASIN--Continued										
03006800 - SCAFFOLD LICK RN NR NORWICH, PA (LAT 41 42 06 LONG 078 16 31)										
MAR , 1981										
25...	.08	.54	530	280	250	920	120	800	2	.02
AUG										
10...	.07	.31	410	130	280	800	0	840	1	.01
03007700 - SKINNER C AT PORT ALLEGANY, PA (LAT 41 48 10 LONG 078 17 08)										
MAR , 1981										
25...	.05	1.1	640	550	90	60	30	30	4	.13
AUG										
10...	.09	.62	800	590	210	70	30	40	7	.06
POTATO CREEK BASIN--Continued										
03008900 - HAVENS RN AT NORWICH, PA (LAT 41 39 12 LONG 078 21 43)										
MAR , 1981										
25...	.06	.29	750	720	30	40	30	10	2	.01
AUG										
13...	.05	.44	210	140	70	30	0	30	1	.01
03009005 - W BR POTATO C AT BETULA, PA (LAT 41 40 16 LONG 078 24 00)										
MAR , 1981										
25...	.04	.73	170	130	40	70	30	40	4	.10
AUG										
13...	.04	.44	290	240	50	40	10	30	1	.01
03009009 - RED MILL BROOK AT HAMLIN STATION, PA (LAT 41 42 39 LONG 078 23 43)										
MAR , 1981										
25...	.05	1.0	260	230	30	160	60	100	2	.05
AUG										
13...	.09	.42	1000	970	30	70	10	60	1	.01
03009100 - ROBBINS BK AT CROSBY, PA (LAT 41 44 10 LONG 078 23 34)										
MAR , 1981										
25...	.03	.52	250	200	50	20	0	20	4	.09
AUG										
13...	.04	.15	280	120	160	20	0	20	1	.00
03009678 - MARVIN RN AT SMETHPORT, PA (LAT 41 48 25 LONG 078 27 08)										
MAR , 1981										
25...	.06	6.0	450	400	50	70	30	40	9	1.2
AUG										
10...	.07	.89	680	470	210	40	10	30	4	.07
TUNUNGWANT CREEK BASIN--Continued										
03010948 - EAST BRANCH TUNUNGWANT CREEK AT LEWIS RUN, PA (LAT 41 52 22 LONG 078 39 22)										
MAR , 1981										
23...	.13	6.2	230	110	120	100	20	80	4	.27
AUG										
10...	.19	.45	540	460	80	80	50	30	4	.01
03010951 - MINARD RN AT CUSTER CITY, PA (LAT 41 54 40 LONG 078 38 33)										
MAR , 1981										
23...	.27	4.9	360	300	60	60	30	30	8	.20
AUG										
10...	.82	3.5	190	130	60	20	10	10	1	.01

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
TUNUNGWANT CREEK BASIN--Continued										
03010952 - WEST BR AT BRADFORD, PA (LAT 41 56 16 LONG 078 40 40)										
MAR , 1981										
23...	1130	15	187	6.6	5.0	.1	5.0	24	10	179
AUG										
10...	1710	3.3	385	8.2	26.5	--	--	39	8.6	215
03010954 - BENNETT BROOK AT BRADFORD, PA (LAT 41 57 46 LONG 078 40 02)										
MAR , 1981										
23...	1015	3.3	123	6.0	3.0	<.1	--	15	11	66
AUG										
10...	1630	.72	145	7.0	23.0	--	--	29	9.3	78
WILLOW CREEK BASIN										
03011580 - WILLOW CREEK AT WILLOW BAY RECREATION AREA (LAT 40 59 01 LONG 078 54 03)										
MAR , 1981										
25...	1145	17	60	6.8	4.0	<.1	--	--	11	37
AUG										
12...	1130	4.6	75	7.0	19.5	--	--	9	9.5	52
SUGAR RUN BASIN										
03011600 - SUGAR RN NR SUGAR RUN, PA (LAT 41 52 24 LONG 078 49 51)										
MAR , 1981										
25...	1030	14	55	6.8	2.0	<.1	--	8	8.4	38
AUG										
12...	1030	3.1	70	6.9	16.0	--	--	13	8.1	38
KINZUA CREEK BASIN										
03011900 - CHAPPEL FK NR MORRISON, PA (LAT 41 49 00 LONG 078 51 31)										
MAR , 1981										
25...	0915	29	85	7.1	2.0	--	--	9	8.5	50
AUG										
12...	0915	3.9	165	7.1	16.0	--	--	11	7.4	109
BROWNS RUN BASIN										
03012580 - BROWNS RUN AT WARREN, PA (LAT 41 49 21 LONG 079 06 33)										
MAR , 1981										
25...	0730	18	75	7.1	2.0	--	--	16	12	48
AUG										
12...	1655	7.0	105	7.0	19.0	--	--	9	11	81
03012582 - MORRISON RUN AT WARREN, PA (LAT 41 49 12 LONG 079 06 36)										
AUG , 1981										
12...	1630	1.8	135	7.0	19.0	--	--	9	8.4	97
PERRY MAGEE RUN BASIN										
03015550 - PERRY MAGEE RN NR TIDIOUTE, PA (LAT 41 42 19 LONG 079 21 15)										
MAR , 1981										
27...	1330	20	<50	7.1	5.0	--	--	13	11	30
AUG										
14...	0850	1.0	55	6.8	17.0	--	--	19	8.8	48
TIDIOUTE CREEK BASIN										
03015560 - TIDIOUTE C AT TIDIOUTE, PA (LAT 41 40 00 LONG 079 24 35)										
MAR , 1981										
24...	1600	44	52	7.3	4.0	--	--	8	9.3	33
AUG										
14...	0930	2.6	85	7.1	18.0	--	--	9	8.4	53

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
TUNUNGWANT CREEK BASIN--Continued										
03010952 - WEST BR AT BRADFORD, PA (LAT 41 56 16 LONG 078 40 40)										
MAR , 1981										
23...	.24	7.6	240	170	70	40	0	60	6	.26
AUG										
10...	.29	1.9	360	270	90	40	30	10	2	.02
03010954 - BENNETT BROOK AT BRADFORD, PA (LAT 41 57 46 LONG 078 40 02)										
MAR , 1981										
23...	.09	.60	430	410	20	50	30	20	8	.07
AUG										
10...	.11	.15	190	160	30	10	--	<10	1	.00
WILLOW CREEK BASIN--Continued										
03011580 - WILLOW CREEK AT WILLOW BAY RECREATION AREA (LAT 40 59 01 LONG 078 54 03)										
MAR , 1981										
25...	.05	1.7	450	410	40	30	10	20	4	.18
AUG										
12...	.07	.65	220	180	40	20	--	<10	1	.01
SUGAR RUN BASIN--Continued										
03011600 - SUGAR RN NR SUGAR RUN, PA (LAT 41 52 24 LONG 078 49 51)										
MAR , 1981										
25...	.05	1.5	170	140	30	10	0	10	3	.12
AUG										
12...	.05	.32	550	460	90	30	20	10	166	1.4
KINZUA CREEK BASIN--Continued										
03011900 - CHAPPEL FK NR MORRISON, PA (LAT 41 49 00 LONG 078 51 31)										
MAR , 1981										
25...	.07	3.9	230	200	30	40	10	30	2	.16
AUG										
12...	.15	1.1	480	390	90	30	10	20	1	.01
BROWNS RUN BASIN--Continued										
03012580 - BROWNS RUN AT WARREN, PA (LAT 41 49 21 LONG 079 06 33)										
MAR , 1981										
25...	.07	2.3	2300	2300	40	20	0	30	3	.15
AUG										
12...	.11	1.5	320	220	100	30	20	10	3	.06
03012582 - MORRISON RUN AT WARREN, PA (LAT 41 49 12 LONG 079 06 36)										
AUG , 1981										
12...	.13	.49	1200	1100	150	70	30	40	17	.09
PERRY MAGEE BASIN--Continued										
03015550 - PERRY MAGEE RN NR TIDIOUTE, PA (LAT 41 42 19 LONG 079 21 15)										
MAR , 1981										
27...	.04	1.6	300	230	70	30	20	10	8	.44
AUG										
14...	.07	.14	340	270	70	20	--	<10	2	.01
TIDIOUTE CREEK BASIN--Continued										
03015560 - TIDIOUTE C AT TIDIOUTE, PA (LAT 41 40 00 LONG 079 24 35)										
MAR , 1981										
24...	.04	3.9	260	220	40	10	0	10	4	.48
AUG										
14...	.07	.37	460	370	90	20	--	<10	1	.01

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
EAST HICKORY CREEK BASIN										
03015700 - BEAVER RN AT ENDEAVOR, PA (LAT 41 35 12 LONG 079 21 17)										
MAR , 1981										
27...	1600	21	55	7.1	4.5	--	--	9	12	36
AUG										
13...	1645	4.7	55	6.9	16.0	--	--	11	8.9	42
03015798 - E HICKORY RN AT QUEEN, PA (LAT 41 37 32 LONG 079 21 44)										
MAR , 1981										
27...	1500	71	<50	7.0	5.0	--	--	14	12	30
AUG										
14...	1100	17	<50	7.1	18.0	--	--	11	9.1	33
LITTLE HICKORY RUN BASIN										
03016005 - L HICKORY RN AT WEST HICKORY, PA (LAT 41 33 28 LONG 079 24 56)										
MAR , 1981										
24...	1315	12	60	7.2	3.0	--	--	8	13	38
AUG										
11...	0840	4.0	70	7.0	16.0	--	--	13	12	48
WEST HICKORY CREEK BASIN										
03016100 - WEST HICKORY CREEK NR. WEST HICKORY, PA. (LAT 41 34 32 LONG 79 26 20)										
MAR , 1981										
24...	1445	32	115	7.4	4.0	--	--	11	13	67
AUG										
11...	0925	24	180	6.9	15.0	--	--	11	13	116
TIONESTA CREEK BASIN										
03016200 - ELKHORN RN AT BUCHERS MILL, PA (LAT 41 45 35 LONG 079 10 11)										
MAR , 1981										
26...	0800	6.9	65	6.6	1.5	<.1	--	7	--	41
AUG										
13...	0910	1.6	75	7.1	17.0	--	--	10	7.5	69
03016300 - FARNSWORTH BR NR CLARENDON, PA (LAT 41 44 37 LONG 079 08 21)										
MAR , 1981										
26...	0930	18	<50	7.3	2.0	--	--	6	8.7	31
AUG										
13...	0950	9.9	<50	7.3	16.0	--	--	11	8.4	32
03016805 - S BR TIONESTA C AT CHERRY RUN, PA (LAT 41 38 03 LONG 078 59 50)										
MAR , 1981										
26...	1115	39	70	6.9	3.5	--	--	13	9.1	42
AUG										
13...	1110	20	85	7.0	16.0	--	--	28	9.5	50
03016900 - TWOMILE RN AT SHEFFIELD, PA (LAT 41 42 15 LONG 079 01 21)										
MAR , 1981										
25...	1545	35	60	7.0	6.0	--	--	8	11	38
AUG										
12...	1530	14	65	7.0	21.0	--	--	10	9.5	49
03017510 - BLUEJAY C NR LYNCH, PA (LAT 41 34 35 LONG 079 02 56)										
MAR , 1981										
26...	1245	17	<50	6.7	5.0	<.1	--	6	10	27
AUG										
13...	1230	10	<50	6.9	16.0	--	--	14	8.5	39

BEST DOCUMENT AVAILABLE

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
EAST HICKORY CREEK BASIN--Continued										
03015700 - BEAVER RN AT ENDEAVOR, PA (LAT 41 35 12 LONG 079 21 17)										
MAR , 1981										
27...	.05	2.1	350	280	70	70	20	50	9	.53
AUG										
13...	.06	.54	370	300	70	20	--	<10	1	.01
03015798 - E HICKORY RN AT QUEEN, PA (LAT 41 37 32 LONG 079 21 44)										
MAR , 1981										
27...	.04	5.8	330	210	120	30	0	40	8	1.6
AUG										
14...	.04	1.5	510	140	370	20	0	20	1	.05
LITTLE HICKORY RUN BASIN--Continued										
03016005 - L HICKORY RN AT WEST HICKORY, PA (LAT 41 33 28 LONG 079 24 56)										
MAR , 1981										
24...	.05	1.2	250	250	0	10	0	10	3	.10
AUG										
11...	.07	.53	360	330	30	20	--	<10	9	.10
WEST HICKORY CREEK BASIN--Continued										
03016100 - WEST HICKORY CREEK NR. WEST HICKORY, PA. (LAT 41 34 32 LONG 79 26 20)										
MAR , 1981										
24...	.09	5.9	320	280	40	30	20	10	2	.18
AUG										
11...	.16	7.5	460	390	70	40	30	10	5	.32
TIONESTA CREEK BASIN--Continued										
03016200 - ELKHORN RN AT BUCHERS MILL, PA (LAT 41 45 35 LONG 079 10 11)										
MAR , 1981										
26...	.06	.76	--	--	--	--	--	--	3	.06
AUG										
13...	.09	.30	890	550	340	30	10	20	4	.02
03016300 - FARNSWORTH BR NR CLARENDON, PA (LAT 41 44 37 LONG 079 08 21)										
MAR , 1981										
26...	.04	1.5	170	150	20	30	0	30	1	.05
AUG										
13...	.04	.86	500	310	190	50	20	30	4	.11
03016805 - S BR TIONESTA C AT CHERRY RUN, PA (LAT 41 38 03 LONG 078 59 50)										
MAR , 1981										
26...	.06	4.4	340	260	80	50	10	40	5	.53
AUG										
13...	.07	2.7	420	210	210	30	10	20	1	.06
03016900 - TWOMILE RN AT SHEFFIELD, PA (LAT 41 42 15 LONG 079 01 21)										
MAR , 1981										
25...	.05	3.6	170	110	60	40	20	20	3	.29
AUG										
12...	.07	1.9	400	270	130	20	10	10	1	.04
03017510 - BLUEJAY C NR LYNCH, PA (LAT 41 34 35 LONG 079 02 56)										
MAR , 1981										
26...	.04	1.2	140	110	30	60	0	70	3	.14
AUG										
13...	.05	1.1	540	430	110	70	40	30	8	.23

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
TIONESTA CREEK BASIN--Continued										
03017700 - UPPER SHERIFF RN NR LYNCH, PA (LAT 41 37 04 LONG 079 06 47)										
MAR , 1981										
26...	1400	6.5	60	6.7	5.0	<.1	104	--	11	36
AUG										
13...	1330	1.1	65	6.8	16.0	--	--	11	9.5	75
03017800 - MINISTER CREEK NR TRUEMANS, PA. (LAT 41 37 17 LONG 79 09 12)										
MAR , 1981										
26...	1430	13	<50	6.9	5.0	<.1	--	8	10	31
AUG										
13...	1415	11	<50	6.9	16.0	--	--	10	8.3	29
03017810 - THE BRANCH AT KELLETTVILLE, PA (LAT 41 32 31 LONG 079 14 40)										
MAR , 1981										
26...	1615	13	50	6.8	6.0	<.1	--	--	11	34
AUG										
13...	1520	11	50	6.8	18.0	--	--	12	8.7	41
03017820 - ROSS RN NR CRYSTAL SPRINGS, PA (LAT 41 30 53 LONG 079 19 30)										
MAR , 1981										
27...	1700	63	55	7.0	5.0	--	--	4	12	48
AUG										
14...	1300	--	--	--	--	--	--	13	8.7	48
03018900 - COON C NR NEWMANSVILLE, PA (LAT 41 26 24 LONG 079 19 44)										
MAR , 1981										
28...	0800	73	85	6.4	2.0	<.1	--	--	28	56
AUG										
15...	0915	14	110	6.7	20.0	--	--	17	37	91
LITTLE TIONESTA CREEK BASIN										
03020055 - L TIONESTA C AT TIONESTA, PA (LAT 41 27 55 LONG 079 28 25)										
MAR , 1981										
24...	0745	11	74	6.7	1.0	--	--	5	13	48
AUG										
14...	1500	--	85	6.8	18.5	--	--	12	11	52
STEWART RUN BASIN										
03020100 - STEWART RN AT BAUM, PA (LAT 41 28 28 LONG 079 32 32)										
MAR , 1981										
24...	0930	15	460	7.0	2.5	--	--	--	8.9	269
AUG										
10...	1555	5.7	738	7.8	--	--	--	13	.9	459
HEMLOCK RUN BASIN										
03020200 - HEMLOCK RN AT PRESIDENT, PA (LAT 41 27 04 LONG 079 33 25)										
MAR , 1981										
23...	1730	57	84	7.2	5.0	--	--	10	18	53
AUG										
10...	1500	19	105	7.0	20.0	--	--	10	19	68
PITHOLE CREEK BASIN										
03020250 - PITHOLE C NR LOVELL CORNERS, PA (LAT 41 32 05 LONG 079 33 51)										
MAR , 1981										
24...	1130	20	280	7.3	4.0	--	--	12	9.9	161
AUG										
11...	1105	37	325	6.8	14.5	--	--	13	8.6	242

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
TIONESTA CREEK BASIN--Continued										
03017700 - UPPER SHERIFF RN NR LYNCH, PA (LAT 41 37 04 LONG 079 06 47)										
MAR , 1981										
26...	.05	.63	80	80	0	60	0	80	5	.09
AUG										
13...	.10	.23	170	140	30	20	10	10	1	.00
03017800 - MINISTER CREEK NR TRUEMANS, PA. (LAT 41 37 17 LONG 79 09 12)										
MAR , 1981										
26...	.04	1.0	120	80	40	20	0	20	4	.14
AUG										
13...	.04	.89	240	180	60	30	20	10	1	.03
03017810 - THE BRANCH AT KELLETSVILLE, PA (LAT 41 32 31 LONG 079 14 40)										
MAR , 1981										
26...	.05	1.2	300	250	50	40	0	40	4	.14
AUG										
13...	.06	1.2	420	240	180	30	10	20	1	.03
03017820 - ROSS RN NR CRYSTAL SPRINGS, PA (LAT 41 30 53 LONG 079 19 30)										
MAR , 1981										
27...	.07	8.2	360	290	70	40	20	20	10	1.7
AUG										
14...	.07	--	350	190	160	10	0	10	1	--
03018900 - COON C NR NEWMANSVILLE, PA (LAT 41 26 24 LONG 079 19 44)										
MAR , 1981										
28...	.08	11.2	370	250	120	460	0	500	9	1.8
AUG										
15...	.12	3.6	360	320	40	570	70	500	1	.04
LITTLE TIONESTA CREEK BASIN--Continued										
03020055 - L TIONESTA C AT TIONESTA, PA (LAT 41 27 55 LONG 079 28 25)										
MAR , 1981										
24...	.07	1.4	260	240	20	30	20	10	3	.09
AUG										
14...	.07	--	250	100	150	20	10	10	1	--
STEWART RUN BASIN--Continued										
03020100 - STEWART RN AT BAUM, PA (LAT 41 28 28 LONG 079 32 32)										
MAR , 1981										
24...	.37	11.3	290	230	60	180	0	180	6	.25
AUG										
10...	.62	7.0	310	270	40	50	10	40	3	.05
HEMLOCK RUN BASIN--Continued										
03020200 - HEMLOCK RN AT PRESIDENT, PA (LAT 41 27 04 LONG 079 33 25)										
MAR , 1981										
23...	.07	8.2	220	180	40	80	0	90	4	.63
AUG										
10...	.09	3.4	350	260	90	50	0	180	7	.36
PITHOLE CREEK BASIN--Continued										
03020250 - PITHOLE C NR LOVELL CORNERS, PA (LAT 41 32 05 LONG 079 33 51)										
MAR , 1981										
24...	.22	8.9	400	350	50	170	0	180	3	.17
AUG										
11...	.33	24.4	570	480	90	160	20	140	5	.50

BEST DOCUMENT AVAILABLE

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OIL CREEK BASIN										
03020428 - THOMPSON C NR HYDETOWN, PA (LAT 41 39 42 LONG 079 41 58)										
MAR , 1981										
25...	1145	35	110	7.6	3.5	--	--	28	13	72
AUG										
11...	1200	41	120	7.6	17.5	--	--	44	11	96
03020438 - CALDWELL C AT GRAND VALLEY, PA (LAT 41 42 36 LONG 079 32 44)										
MAR , 1981										
27...	1015	52	75	7.0	4.0	--	--	7	12	52
AUG										
11...	1445	4.3	105	7.1	20.0	--	--	22	9.7	40
03020445 - W BR CALDWELL C NR GRAND VALLEY, PA (LAT 41 43 16 LONG 079 34 49)										
MAR , 1981										
27...	1130	43	60	7.2	4.0	--	--	13	11	42
AUG										
11...	1530	22	70	7.0	20.0	--	--	25	--	--
03020455 - PINE C NR ENTERPRISE, PA (LAT 41 37 56 LONG 079 36 49)										
MAR , 1981										
27...	0830	135	115	7.4	3.5	--	--	5	13	71
AUG										
11...	1315	52	160	7.0	16.5	--	--	19	9.9	106
03020510 - CHERRYTREE RUN NR ROUSEVILLE, PA. (LAT 41 28 51 LONG 079 41 47)										
MAR , 1981										
25...	0745	21	140	7.1	2.0	--	--	16	15	90
AUG										
11...	0745	8.3	230	7.4	17.5	--	--	36	16	174
FRENCH CREEK BASIN										
03021610 - E BR MUDDY C NR KOOCHOGEY CORNERS, PA (LAT 41 43 06 LONG 079 51 07)										
MAR , 1981										
25...	1330	15	125	7.6	5.5	--	--	32	15	84
AUG										
11...	1400	88	130	7.2	20.0	--	--	34	14	125
03022100 - GRAVEL RN NR WOODCOCK, PA (LAT 41 45 31 LONG 080 06 34)										
MAR , 1981										
25...	1530	22	175	8.0	7.0	--	--	58	19	102
AUG										
11...	1545	12	130	8.0	21.5	--	--	90	22	168
03023301 - VAN HORNE CREEK AT KERRTOWN, PA (LAT 41 37 04 LONG 080 10 15)										
MAR , 1981										
26...	0745	10	255	7.5	1.5	--	--	52	24	142
AUG										
12...	0745	16	220	7.8	16.0	--	--	--	21	144
03023338 - WATSON RN AT WATSON RUN, PA (LAT 41 35 23 LONG 080 13 12)										
MAR , 1981										
26...	0900	33	275	7.4	2.0	--	--	48	21	104
AUG										
12...	0900	36	215	7.5	17.0	--	--	70	19	145

BEST DOCUMENT AVAILABLE

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OIL CREEK BASIN--Continued										
03020428 - THOMPSON C NR HYDETOWN, PA (LAT 41 39 42 LONG 079 41 58)										
MAR , 1981										
25...	.10	6.9	130	100	30	10	0	10	5	.48
AUG										
11...	.13	10.8	1600	1500	110	90	80	10	56	6.3
03020438 - CALDWELL C AT GRAND VALLEY, PA (LAT 41 42 36 LONG 079 32 44)										
MAR , 1981										
27...	.07	7.4	1200	540	660	80	0	80	34	4.8
AUG										
11...	.05	.47	1800	1100	700	140	50	90	16	.19
03020445 - W BR CALDWELL C NR GRAND VALLEY, PA (LAT 41 43 16 LONG 079 34 49)										
MAR , 1981										
27...	.06	4.9	630	500	130	40	20	20	16	1.9
AUG										
11...	--	--	--	--	--	--	--	--	31	1.8
03020455 - PINE C NR ENTERPRISE, PA (LAT 41 37 56 LONG 079 36 49)										
MAR , 1981										
27...	.10	25.9	1000	650	350	90	30	60	34	12
AUG										
11...	.14	14.9	1500	1200	300	90	40	50	133	19
03020510 - CHERRYTREE RUN NR ROUSEVILLE, PA. (LAT 41 28 51 LONG 079 41 47)										
MAR , 1981										
25...	.12	5.1	170	140	30	30	0	30	2	.11
AUG										
11...	.24	3.9	290	230	60	40	10	30	7	.16
FRENCH CREEK BASIN--Continued										
03021610 - E BR MUDDY C NR KOOCHOGEY CORNERS, PA (LAT 41 43 06 LONG 079 51 07)										
MAR , 1981										
25...	.11	3.4	450	330	120	40	0	40	10	.41
AUG										
11...	.17	29.9	2400	2100	280	200	140	60	125	30
03022100 - GRAVEL RN NR WOODCOCK, PA (LAT 41 45 31 LONG 080 06 34)										
MAR , 1981										
25...	.14	6.1	240	190	50	30	0	30	9	.54
AUG										
11...	.23	5.5	610	550	60	80	50	30	16	.53
03023301 - VAN HORNE CREEK AT KERRTOWN, PA (LAT 41 37 04 LONG 080 10 15)										
MAR , 1981										
26...	.19	3.9	300	220	80	50	10	40	7	.19
AUG										
12...	.20	6.5	410	300	110	40	10	30	9	.41
03023338 - WATSON RN AT WATSON RUN, PA (LAT 41 35 23 LONG 080 13 12)										
MAR , 1981										
26...	.14	9.3	280	220	60	20	0	30	12	1.1
AUG										
12...	.20	14.2	820	700	120	60	0	60	33	3.2

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
FRENCH CREEK BASIN--Continued										
03023400 - L SUGAR C AT COCHRANTON, PA (LAT 41 31 21 LONG 080 03 00)										
MAR , 1981 26...	1030	95	165	7.5	4.0	--	--	46	19	107
AUG 12...	1030	312	105	7.6	18.0	--	--	30	13	92
03024003 - MILL C AT UTICA, PA (LAT 41 25 58 LONG 079 57 19)										
MAR , 1981 24...	1200	23	130	7.3	4.0	--	--	46	19	73
AUG 10...	1100	5.7	175	8.1	19.5	--	--	68	17	124
03024200 - WEST BR SUGAR CR NR BRADLEYTOWN, PA. (LAT 41 34 31 LONG 079 51 54)										
MAR , 1981 25...	1000	17	95	7.5	3.0	--	--	24	14	62
AUG 11...	1030	13	95	7.6	19.0	--	--	28	13	68
03024210 - PRATHER C NR DEMPSEYTOWN, PA (LAT 41 32 54 LONG 079 47 39)										
MAR , 1981 25...	0910	28	80	7.1	1.0	--	--	14	13	58
AUG 11...	0915	8.8	100	7.5	17.5	--	--	30	12	75
03024300 - LAKE C AT COOPERSTOWN, PA (LAT 41 29 52 LONG 079 52 22)										
MAR , 1981 24...	1330	49	130	7.6	6.0	--	--	32	19	74
AUG 10...	1300	35	145	8.3	22.0	--	--	50	10	109
03025200 - PATCHEL RUN NEAR FRANKLIN, PA. (LAT 41 25 20 LONG 079 50 59)										
MAR , 1981 24...	1500	6.5	130	7.2	6.0	--	--	24	15	67
AUG 10...	1430	2.4	145	7.6	21.0	--	--	24	13	93
LOWER TWOMILE RUN BASIN										
03025505 - LOWER TWOMILE RN AT VENANGO, PA (LAT 41 22 36 LONG 079 47 57)										
MAR , 1981 24...	1630	22	340	7.4	5.0	--	--	24	17	194
AUG 10...	1615	3.7	430	7.6	23.5	--	--	44	14	277
EAST SANDY CREEK BASIN										
03025790 - E SANDY C NR KOSSUTH, PA (LAT 41 19 00 LONG 079 35 14)										
MAR , 1981 23...	1600	15	190	7.1	6.0	--	--	12	55	113
AUG 10...	1400	8.4	240	7.1	18.5	--	--	13	74	172
03025810 - PINE RN AT NICKLEVILLE, PA (LAT 41 17 00 LONG 079 38 31)										
MAR , 1981 23...	1500	9.1	180	7.1	5.0	--	--	14	27	97
AUG 10...	1245	3.0	235	7.1	18.0	--	--	12	22	148

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
FRENCH CREEK BASIN--Continued										
03023400 - L SUGAR C AT COCHRANTON, PA (LAT 41 31 21 LONG 080 03 00)										
MAR , 1981										
26...	.15	27.6	650	570	80	30	10	20	13	3.3
AUG										
12...	.13	77.5	1600	1400	210	90	70	20	48	40
03024003 - MILL C AT UTICA, PA (LAT 41 25 58 LONG 079 57 19)										
MAR , 1981										
24...	.10	4.5	210	130	80	10	0	20	7	.44
AUG										
10...	.17	1.9	250	150	100	<10	--	<10	1	.02
03024200 - WEST BR SUGAR CR NR BRADLEYTOWN, PA. (LAT 41 34 31 LONG 079 51 54)										
MAR , 1981										
25...	.08	2.9	280	140	140	10	0	10	7	.33
AUG										
11...	.09	2.5	830	400	430	30	20	10	6	.22
03024210 - PRATHER C NR DEMPSEYTOWN, PA (LAT 41 32 54 LONG 079 47 39)										
MAR , 1981										
25...	.08	4.4	210	160	50	10	0	20	7	.54
AUG										
11...	.10	1.7	340	220	120	30	0	30	2	.05
03024300 - LAKE C AT COOPERSTOWN, PA (LAT 41 29 52 LONG 079 52 22)										
MAR , 1981										
24...	.10	9.8	190	140	50	30	10	20	4	.53
AUG										
10...	.15	10.4	440	340	100	60	50	10	6	.57
03025200 - PATCHEL RUN NEAR FRANKLIN, PA. (LAT 41 25 20 LONG 079 50 59)										
MAR , 1981										
24...	.09	1.1	190	140	50	40	20	20	1	.02
AUG										
10...	.13	.63	220	110	110	30	0	40	3	.02
LOWER TWO MILE RUN BASIN--Continued										
03025505 - LOWER TWO MILE RN AT VENANGO, PA (LAT 41 22 36 LONG 079 47 57)										
MAR , 1981										
24...	.26	11.8	270	220	50	110	0	110	3	.18
AUG										
10...	.38	2.7	210	130	80	60	20	40	3	.03
EAST SANDY CREEK BASIN--Continued										
03025790 - E SANDY C NR KOSSUTH, PA (LAT 41 19 00 LONG 079 35 14)										
MAR , 1981										
23...	.15	4.7	2500	600	1900	950	0	1000	7	.30
AUG										
10...	.23	3.9	390	240	150	1400	0	1500	1	.02
03025810 - PINE RN AT NICKLEVILLE, PA (LAT 41 17 00 LONG 079 38 31)										
MAR , 1981										
23...	.13	2.4	3200	3000	220	210	10	200	183	4.5
AUG										
10...	.20	1.2	3200	2800	400	240	100	140	51	.42

BEST DOCUMENT AVAILABLE

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
SANDY CREEK BASIN										
03026005 - MCCUTCHEON RN AT SANDY LAKE, PA (LAT 41 21 07 LONG 080 05 30)										
MAR , 1981										
24...	1015	1.3	140	7.4	3.5	--	--	24	29	76
AUG										
10...	0900	.31	180	7.7	17.0	--	--	38	32	125
03026100 - L SANDY C AT POLK, PA (LAT 41 22 14 LONG 079 55 23)										
MAR , 1981										
24...	1050	29	135	7.4	4.0	--	--	36	22	72
AUG										
10...	1000	9.1	180	7.9	18.5	--	--	48	17	118
SCRUBGRASS CREEK BASIN										
03026200 - SCRUBGRASS C AT KENNERDELL, PA (LAT 41 15 18 LONG 079 50 27)										
MAR , 1981										
23...	1030	32	520	7.0	2.5	--	--	9	160	321
AUG										
10...	1000	16	585	7.1	20.5	--	--	11	180	426
MILL CREEK BASIN										
03026300 - MILL C NR EMLENTON, PA (LAT 41 13 30 LONG 079 43 20)										
MAR , 1981										
23...	1300	18	185	7.5	3.0	--	--	20	41	103
AUG										
10...	1130	2.5	215	7.3	18.0	--	--	11	41	152
CLARION RIVER BASIN										
03027550 - CROOKED CR AT GLEN HAZEL, PA. (LAT 41 32 15 LONG 078 36 49)										
MAR , 1981										
23...	1720	8.5	58	5.6	1.0	--	--	2	11	35
AUG										
11...	1200	4.8	68	6.8	18.0	--	--	14	9.2	43
03027610 - JOHNSON RUN AT KETNER, PA. (LAT 41 32 23 LONG 078 37 34)										
MAR , 1981										
24...	0945	9.0	323	4.6	2.0	.1	5.0	<1	130	206
AUG										
11...	1115	8.2	325	4.4	18.0	.3	15	--	120	224
03027830 - W BR CLARION R NR WILCOX, PA (LAT 41 36 20 LONG 078 40 45)										
MAR , 1981										
23...	1525	28	94	6.2	1.0	<.1	--	3	9.0	60
AUG										
11...	0830	21	103	7.0	16.0	--	--	25	8.4	57
03027990 - WILSON RN AT DAHOGA, PA (LAT 41 35 56 LONG 078 43 35)										
MAR , 1981										
23...	1445	15	111	7.4	6.0	--	--	21	9.0	61
AUG										
11...	0915	13	95	6.8	14.5	--	--	19	8.1	60
03028520 - POWERS RN AT JOHNSONBURG, PA (LAT 41 28 45 LONG 078 40 12)										
MAR , 1981										
24...	0750	6.9	73	6.9	.5	--	--	10	12	45
AUG										
11...	1410	16	65	6.8	16.5	--	--	8	10	38

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
SANDY CREEK BASIN--Continued										
03026005 - MCCUTCHEON RN AT SANDY LAKE, PA (LAT 41 21 07 LONG 080 05 30)										
MAR , 1981										
24...	.10	.27	110	80	30	30	20	10	1	.00
AUG										
10...	.17	.10	140	110	30	30	0	30	1	.00
03026100 - L SANDY C AT POLK, PA (LAT 41 22 14 LONG 079 55 23)										
MAR , 1981										
24...	.10	5.7	210	180	30	20	10	10	8	.63
AUG										
10...	.16	2.9	190	140	50	20	10	10	3	.07
SCRUBGRASS CREEK BASIN--Continued										
03026200 - SCRUBGRASS C AT KENNERDELL, PA (LAT 41 15 18 LONG 079 50 27)										
MAR , 1981										
23...	.44	28.1	230	0	1500	2400	0	2400	15	1.3
AUG										
10...	.58	19.0	450	420	30	2000	0	2100	5	.22
MILL CREEK BASIN--Continued										
03026300 - MILL C NR EMLENTON, PA (LAT 41 13 30 LONG 079 43 20)										
MAR , 1981										
23...	.14	5.0	350	300	50	60	20	40	4	.20
AUG										
10...	.21	1.0	790	700	90	40	0	170	15	.10
CLARION RIVER BASIN--Continued										
03027550 - CROOKED CR AT GLEN HAZEL, PA. (LAT 41 32 15 LONG 078 36 49)										
MAR , 1981										
23...	.05	.80	240	150	90	40	10	30	10	.23
AUG										
11...	.06	.56	450	310	140	30	10	20	2	.03
03027610 - JOHNSON RUN AT KETNER, PA. (LAT 41 32 23 LONG 078 37 34)										
MAR , 1981										
24...	.28	5.0	650	330	320	3100	0	3100	2	.05
AUG										
11...	.30	4.9	340	230	110	2900	0	2900	1	.02
03027830 - W BR CLARION R NR WILCOX, PA (LAT 41 36 20 LONG 078 40 45)										
MAR , 1981										
23...	.08	4.5	140	100	40	10	0	20	1	.08
AUG										
11...	.08	3.2	430	350	80	30	10	20	4	.23
03027990 - WILSON RN AT DAHOGA, PA (LAT 41 35 56 LONG 078 43 35)										
MAR , 1981										
23...	.08	2.5	450	370	80	70	30	40	1	.04
AUG										
11...	.08	2.1	340	250	90	60	20	40	4	.14
03028520 - POWERS RN AT JOHNSONBURG, PA (LAT 41 28 45 LONG 078 40 12)										
MAR , 1981										
24...	.06	.85	300	260	40	20	10	10	1	.02
AUG										
11...	.05	1.6	360	310	50	30	20	10	5	.22

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
CLARION RIVER BASIN--Continued										
03028595 - SILVER C AT WILCOX, PA (LAT 41 29 57 LONG 078 41 03)										
MAR , 1981										
24...	0830	5.8	59	6.7	1.5	<.1	--	9	11	39
AUG										
11...	1245	6.1	80	6.5	18.5	.1	5.0	16	12	46
03028800 - DAGUSCAHONDA CR AT DAGUSCAHONDA, PA. (LAT 41 25 09 LONG 078 38 32)										
MAR , 1981										
24...	1205	10	264	4.1	2.5	.1	5.0	--	89	144
AUG										
11...	1600	14	320	3.5	18.0	1.1	55	--	110	177
03028803 - ELK C AT DAGUSCAHONDA, PA (LAT 41 25 04 LONG 078 39 17)										
MAR , 1981										
24...	1100	35	200	6.5	3.5	.5	25	7	48	112
AUG										
11...	1515	60	170	5.7	20.0	.2	10	5	46	115
03029120 - BIG MILL CR NR RIDGWAY, PA. (LAT 41 24 58 LONG 078 46 31)										
MAR , 1981										
24...	1000	31	<50	6.4	4.0	<.1	--	5	9.7	37
AUG										
11...	0930	29	52	5.9	21.0	.1	5.0	5	10	47
03029140 - BRANDY CAMP CREEK AT ELBON, PA (LAT 41 17 10 LONG 078 41 22)										
MAR , 1981										
23...	1200	14	440	4.8	4.0	.6	30	2	200	312
AUG										
10...	1030	24	390	4.4	17.0	.6	30	--	160	270
03029144 - MEAD RUN AT BROCKPORT, PA. (LAT 41 15 38 LONG 078 43 33)										
MAR , 1981										
23...	1330	9.6	300	6.2	3.0	.1	5.0	6	120	197
AUG										
10...	1130	8.6	285	5.9	18.0	.1	5.0	8	110	198
03029149 - RATTLESNAKE C NR LANES MILLS, PA (LAT 41 13 41 LONG 078 46 52)										
MAR , 1981										
23...	1400	20	370	6.8	6.0	--	--	26	150	251
AUG										
10...	1330	8.8	625	7.2	20.0	--	--	52	210	433
03029180 - BEAR CR NR RIDGWAY, PA. (LAT 41 23 52 LONG 078 49 23)										
MAR , 1981										
24...	1130	42	<50	8.0	4.0	--	--	10	9.0	44
AUG										
11...	1100	40	<50	6.2	18.0	.1	5.0	8	9.5	36
03029182 - SPRING C AT DUHRING, PA (LAT 41 30 57 LONG 078 59 36)										
MAR , 1981										
26...	0930	42	<50	6.9	2.0	--	--	11	9.6	35
AUG										
13...	0830	21	70	6.5	15.0	.1	5.0	13	9.0	58

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
CLARION RIVER BASIN--Continued										
03028595 - SILVER C AT WILCOX, PA (LAT 41 29 57 LONG 078 41 03)										
MAR , 1981 24...	.05	.62	7800	7800	50	570	460	110	1	.02
AUG 11...	.06	.76	310	260	50	90	10	80	2	.03
03028800 - DAGUSCAHONDA CR AT DAGUSCAHONDA, PA. (LAT 41 25 09 LONG 078 38 32)										
MAR , 1981 24...	.20	4.1	2400	1900	480	3100	0	3200	1	.03
AUG 11...	.24	6.6	2000	500	1500	3900	0	3900	2	.08
03028803 - ELK C AT DAGUSCAHONDA, PA (LAT 41 25 04 LONG 078 39 17)										
MAR , 1981 24...	.15	10.6	1200	1200	20	1100	100	1000	7	.67
AUG 11...	.16	18.6	900	740	160	1100	100	1000	12	1.9
03029120 - BIG MILL CR NR RIDGWAY, PA. (LAT 41 24 58 LONG 078 46 31)										
MAR , 1981 24...	.05	3.1	250	200	50	100	0	100	2	.17
AUG 11...	.06	3.6	770	580	190	160	30	130	3	.23
03029140 - BRANDY CAMP CREEK AT ELBON, PA (LAT 41 17 10 LONG 078 41 22)										
MAR , 1981 23...	.42	11.9	5600	0	5700	2700	0	2800	9	.34
AUG 10...	.37	17.5	5600	1600	4000	3600	0	3600	8	.52
03029144 - MEAD RUN AT BROCKPORT, PA. (LAT 41 15 38 LONG 078 43 33)										
MAR , 1981 23...	.27	5.1	760	530	230	2300	100	2200	8	.21
AUG 10...	.27	4.6	390	360	30	2100	100	2000	2	.05
03029149 - RATTLESNAKE C NR LANES MILLS, PA (LAT 41 13 41 LONG 078 46 52)										
MAR , 1981 23...	.34	13.6	770	510	260	460	0	470	4	.22
AUG 10...	.59	10.3	810	760	50	500	30	470	3	.07
03029180 - BEAR CR NR RIDGWAY, PA. (LAT 41 23 52 LONG 078 49 23)										
MAR , 1981 24...	.06	4.9	180	120	60	70	10	60	1	.11
AUG 11...	.05	3.8	500	420	80	80	30	50	3	.32
03029182 - SPRING C AT DUHRING, PA (LAT 41 30 57 LONG 078 59 36)										
MAR , 1981 26...	.05	3.9	350	300	50	70	20	50	1	.11
AUG 13...	.08	3.2	800	680	120	70	10	60	1	.06

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
CLARION RIVER BASIN--Continued										
03029188 - MAXWELL RUN AT MOUTH, PA. (LAT 41 23 05 LONG 078 56 08)										
MAR , 1981										
24...	1300	12	<50	8.0	3.5	--	--	5	11	31
AUG										
11...	1230	26	<50	5.7	17.0	.1	5.0	3	9.8	43
03029193 - W BR MILLSTONE C AT MARIENVILLE, PA (LAT 41 27 25 LONG 079 07 13)										
MAR , 1981										
26...	1100	12	65	7.0	3.5	--	--	10	12	40
AUG										
13...	1100	11	58	6.0	16.5	.1	5.0	7	11	42
03029250 - MAPLE CR NR CLARINGTON, PA. (LAT 41 20 32 LONG 079 08 19)										
MAR , 1981										
26...	1215	15	70	7.2	4.5	--	--	9	11	45
AUG										
13...	1230	26	60	6.0	16.0	.1	5.0	5	13	51
03029400 - TOMS RUN AT COOKSBURG, PA. (LAT 41 20 16 LONG 079 12 50)										
MAR , 1981										
26...	1400	12	100	6.8	5.0	--	--	3	26	60
AUG										
13...	1430	13	70	5.8	16.0	.1	5.0	3	18	47
03029510 - CATHERS RUN AT MOUTH, PA. (LAT 41 19 00 LONG 079 13 59)										
MAR , 1981										
26...	1530	17	80	7.5	6.0	--	--	14	12	41
AUG										
13...	1530	3.7	130	7.2	18.5	--	--	38	7.7	62
03029700 - MILL CREEK NR STRATTANVILLE, PA. (LAT 41 14 15 LONG 079 17 11)										
MAR , 1981										
27...	0800	106	410	4.1	4.0	.7	35	--	190	259
AUG										
15...	1500	15	1000	3.5	19.5	1.9	94	--	390	651
03030105 - TOBY C NR CLARION, PA (LAT 41 14 05 LONG 079 23 05)										
MAR , 1981										
28...	0900	57	650	3.7	2.0	1.8	89	--	300	450
AUG										
15...	1630	23	1050	3.4	18.0	3.4	169	--	420	670
03030365 - DEER C NR SHIPPENVILLE, PA (LAT 41 14 04 LONG 079 27 06)										
MAR , 1981										
29...	0915	91	380	3.9	4.5	.8	40	--	120	201
AUG										
16...	1030	38	675	3.4	18.0	1.6	79	--	210	358
03030570 - PINEY C NR LIMESTONE, PA (LAT 41 07 57 LONG 079 20 54)										
MAR , 1981										
29...	0730	27	290	7.2	5.5	--	--	12	130	222
AUG										
15...	1300	5.0	690	7.1	19.0	--	--	30	250	501

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
CLARION RIVER BASIN--Continued										
03029188 - MAXWELL RUN AT MOUTH, PA. (LAT 41 23 05 LONG 078 56 08)										
MAR , 1981										
24...	.04	1.0	220	190	30	70	10	60	1	.03
AUG										
11...	.06	3.0	340	290	50	90	20	70	2	.14
03029193 - W BR MILLSTONE C AT MARIENVILLE, PA (LAT 41 27 25 LONG 079 07 13)										
MAR , 1981										
26...	.05	1.3	340	240	100	130	0	160	1	.03
AUG										
13...	.06	1.2	660	490	170	160	20	140	1	.03
03029250 - MAPLE CR NR CLARINGTON, PA. (LAT 41 20 32 LONG 079 08 19)										
MAR , 1981										
26...	.06	1.8	350	280	70	50	20	30	1	.04
AUG										
13...	.07	3.5	370	250	120	40	20	20	1	.07
03029400 - TOMS RUN AT COOKSBURG, PA. (LAT 41 20 16 LONG 079 12 50)										
MAR , 1981										
26...	.08	1.9	370	270	100	270	0	300	1	.03
AUG										
13...	.06	1.6	320	210	110	260	20	240	1	.04
03029510 - CATHERS RUN AT MOUTH, PA. (LAT 41 19 00 LONG 079 13 59)										
MAR , 1981										
26...	.06	1.8	320	270	50	50	0	50	1	.05
AUG										
13...	.08	.62	880	720	160	70	20	50	1	.01
03029700 - MILL CREEK NR STRATTANVILLE, PA. (LAT 41 14 15 LONG 079 17 11)										
MAR , 1981										
27...	.35	74.1	4100	0	4300	4500	3600	900	20	5.7
AUG										
15...	.89	26.4	4400	600	3800	11000	0	11000	3	.12
03030105 - TOBY C NR CLARION, PA (LAT 41 14 05 LONG 079 23 05)										
MAR , 1981										
28...	.61	69.3	14000	0	15000	8000	0	8200	13	2.0
AUG										
15...	.91	41.6	22000	2000	20000	14000	1000	13000	26	1.6
03030365 - DEER C NR SHIPPENVILLE, PA (LAT 41 14 04 LONG 079 27 06)										
MAR , 1981										
29...	.27	49.4	3400	0	3400	2400	0	2500	7	1.7
AUG										
16...	.49	36.7	2800	500	2300	4800	0	4800	2	.21
03030570 - PINEY C NR LIMESTONE, PA (LAT 41 07 57 LONG 079 20 54)										
MAR , 1981										
29...	.30	16.2	400	300	100	2500	0	2500	10	.73
AUG										
15...	.68	6.7	770	760	10	2200	0	2200	2	.03

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

CLARION RIVER BASIN--Continued

03030580 - BRUSH RUN AT WILLIAMSBURG, PA. (LAT 41 10 24 LONG 079 23 56)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
28...	0715	18	840	3.7	2.0	1.0	50	--	500	612
AUG										
16...	0800	5.5	1450	3.4	17.5	2.6	129	--	730	1040

03030803 - BEAVER C BELOW BLAIRS CORNERS, PA (LAT 41 10 38 LONG 079 33 37)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
29...	1045	22	270	7.4	6.5	--	--	20	47	148
AUG										
15...	0800	2.2	415	7.4	18.5	--	--	56	99	285

03030900 - LICKING CREEK AT CALLENSBURG PA (LAT 41 07 25 LONG 079 34 06)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
28...	1600	75	1000	6.9	11.0	--	--	18	530	774
AUG										
15...	1000	25	1800	4.3	19.5	.5	25	--	760	1520

03030948 - TURKEY RN AT ALUM ROCK, PA (LAT 41 10 02 LONG 079 37 18)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
28...	1215	18	235	7.3	8.0	--	--	6	45	145
AUG										
15...	1100	1.3	475	7.4	18.0	--	--	17	83	300

BEAR CREEK BASIN

03031508 - S BR BEAR C AT BRUIN, PA (LAT 41 03 17 LONG 079 43 34)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
28...	1500	25	460	7.3	14.0	--	--	--	130	299
AUG										
15...	1430	5.0	2300	7.2	19.0	--	--	22	580	1650

03031510 - N BR BEAR C AT PARKER, PA (LAT 41 05 08 LONG 079 42 17)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
28...	1330	35	330	4.9	8.0	--	--	--	140	217
AUG										
15...	1250	7.0	740	4.3	18.0	.6	30	24	310	521

SUGAR CREEK BASIN

03031540 - SUGAR C AT EAST BRADY, PA (LAT 40 59 30 LONG 079 37 01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
28...	1610	29	270	7.4	13.0	--	--	4	67	162
AUG										
15...	1615	5.4	560	7.2	20.0	--	--	12	170	371

HULING RUN BASIN

03031550 - HULING RUN AT VAN BUREN, PA (LAT 40 58 59 LONG 079 34 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
27...	1500	22	270	7.2	6.0	--	--	7	98	163
AUG										
14...	1130	1.8	500	4.5	19.0	.2	10	--	200	345

REDBANK CREEK BASIN

03031605 - NARROWS C NR SABULA, PA (LAT 41 08 18 LONG 078 41 47)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
25...	0730	6.0	180	7.0	1.5	--	--	20	49	126
AUG										
10...	1630	1.9	300	6.9	21.0	--	--	38	71	211

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
CLARION RIVER BASIN--Continued										
03030580 - BRUSH RUN AT WILLIAMSBURG, PA. (LAT 41 10 24 LONG 079 23 56)										
MAR , 1981										
28...	.83	29.7	4900	0	5300	11000	0	12000	13	.63
AUG										
16...	1.4	15.4	4600	500	4100	23000	1000	22000	1	.01
03030803 - BEAVER C BELOW BLAIRS CORNERS, PA (LAT 41 10 38 LONG 079 33 37)										
MAR , 1981										
29...	.20	8.7	680	370	310	450	0	500	5	.30
AUG										
15...	.39	1.6	1000	920	80	1400	100	1300	4	.02
03030900 - LICKING CREEK AT CALLENSBURG PA (LAT 41 07 25 LONG 079 34 06)										
MAR , 1981										
28...	1.0	157	7300	0	8200	7300	0	7700	33	6.7
AUG										
15...	2.0	103	3300	3000	300	16000	1000	15000	11	.74
03030948 - TURKEY RN AT ALUM ROCK, PA (LAT 41 10 02 LONG 079 37 18)										
MAR , 1981										
28...	.20	7.2	420	210	210	140	0	160	10	.50
AUG										
15...	.41	1.0	540	510	30	70	0	90	2	.01
BEAR CREEK BASIN--Continued										
03031508 - S BR BEAR C AT BRUIN, PA (LAT 41 03 17 LONG 079 43 34)										
MAR , 1981										
28...	.41	20.7	4000	900	3100	600	0	670	48	3.3
AUG										
15...	2.2	22.3	27000	24000	2700	1700	0	2000	272	3.7
03031510 - N BR BEAR C AT PARKER, PA (LAT 41 05 08 LONG 079 42 17)										
MAR , 1981										
28...	.30	20.9	3500	400	3100	2400	0	2500	19	1.8
AUG										
15...	.71	9.8	910	430	480	6800	0	7100	1	.02
SUGAR CREEK BASIN--Continued										
03031540 - SUGAR C AT EAST BRADY, PA (LAT 40 59 30 LONG 079 37 01)										
MAR , 1981										
28...	.22	12.9	1100	510	590	90	0	110	17	1.4
AUG										
15...	.50	5.4	480	420	60	90	0	120	4	.06
HULING RUN BASIN--Continued										
03031550 - HULING RUN AT VAN BUREN, PA (LAT 40 58 59 LONG 079 34 30)										
MAR , 1981										
27...	.22	9.6	990	920	70	750	0	750	26	1.5
AUG										
14...	.47	1.6	1100	1000	60	170	10	160	1	.00
REDBANK CREEK BASIN--Continued										
03031605 - NARROWS C NR SABULA, PA (LAT 41 08 18 LONG 078 41 47)										
MAR , 1981										
25...	.17	2.0	930	830	100	280	30	250	3	.05
AUG										
10...	.29	1.0	4600	3600	990	580	30	550	5	.03

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
REDBANK CREEK BASIN--Continued										
03031620 - LABORDE BRANCH NR HOMECAMP, PA. (LAT 41 06 18 LONG 078 42 52)										
MAR , 1981										
25...	0900	16	335	6.4	2.0	.1	5.0	<1	130	230
AUG										
12...	0730	3.8	570	6.7	19.0	.1	5.0	22	210	428
03031650 - KYLE RUN NR FALLS CREEK, PA. (LAT 41 09 37 LONG 078 51 51)										
MAR , 1981										
23...	1530	2.2	150	6.3	2.0	--	--	13	33	94
AUG										
10...	1430	.15	240	7.0	20.0	--	--	32	56	164
03031662 - WOLF RN AT FALLS CREEK, PA (LAT 41 08 32 LONG 078 47 39)										
MAR , 1981										
23...	1700	26	170	6.8	7.0	--	--	5	35	99
AUG										
10...	1500	2.3	250	7.1	22.0	--	--	32	39	138
03031720 - TROUT RUN NR REYNOLDSVILLE, PA. (LAT 41 04 43 LONG 078 54 07)										
MAR , 1981										
25...	1030	8.5	290	7.3	3.0	--	--	22	65	177
AUG										
12...	0900	1.6	450	7.3	17.5	--	--	48	97	310
03031870 - MILL CREEK AT BROOKVILLE, PA. (LAT 41 09 23 LONG 079 03 12)										
MAR , 1981										
27...	0915	119	270	7.4	4.5	--	--	15	32	139
AUG										
14...	0800	13	215	7.3	17.5	--	--	42	27	126
03031871 - FIVE MILE RUN AT BROOKVILLE, PA. (LAT 41 08 39 LONG 079 04 42)										
MAR , 1981										
27...	1000	34	185	6.8	4.5	--	--	8	52	114
AUG										
14...	0900	2.4	315	7.0	18.0	--	--	20	100	205
03031873 - N FORK NR BLOWTOWN, PA (LAT 41 16 54 LONG 078 55 42)										
MAR , 1981										
24...	1430	19	<50	7.2	4.0	--	--	4	11	34
AUG										
11...	1530	12	<50	5.9	19.0	<.1	--	4	11	30
03031900 - BEAVER RUN AT HEATHVILLE, PA (LAT 41 05 25 LONG 079 10 52)										
MAR , 1981										
27...	1145	23	400	6.9	5.0	--	--	5	160	263
AUG										
12...	1630	4.9	650	4.6	19.0	<.1	--	--	320	528
03031951 - BIG RUN NEAR SPRANKLE MILLS, PA (LAT 40 59 30 LONG 079 05 26)										
MAR , 1981										
25...	1615	12	275	7.6	6.0	--	--	32	81	176
AUG										
12...	1430	2.8	450	7.9	22.0	--	--	65	100	281

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
REDBANK CREEK BASIN--Continued										
03031620 - LABORDE BRANCH NR HOMECAMP, PA. (LAT 41 06 18 LONG 078 42 52)										
MAR , 1981										
25...	.31	9.9	470	310	160	1500	0	1500	2	.09
AUG										
12...	.58	4.3	760	720	40	1700	0	1700	12	.12
03031650 - KYLE RUN NR FALLS CREEK, PA. (LAT 41 09 37 LONG 078 51 51)										
	MAR , 1981									
23...	.13	.56	430	360	70	140	0	150	6	.04
UG										
10...	.22	.07	1100	900	200	170	20	150	8	.00
03031662 - WOLF RN AT FALLS CREEK, PA (LAT 41 08 32 LONG 078 47 39)										
MAR , 1981										
23...	.13	6.9	780	460	320	310	0	310	7	.49
AUG										
10...	.19	.86	1200	1000	170	280	10	270	4	.02
03031720 - TROUT RUN NR REYNOLDSVILLE, PA. (LAT 41 04 43 LONG 078 54 07)										
MAR , 1981										
25...	.24	4.0	210	60	150	520	0	520	1	.02
AUG										
12...	.42	1.3	2100	2000	60	370	60	310	38	.16
03031870 - MILL CREEK AT BROOKVILLE, PA. (LAT 41 09 23 LONG 079 03 12)										
MAR , 1981										
27...	.19	44.7	2300	2100	210	280	30	250	4	1.3
AUG										
14...	.17	4.4	840	670	170	70	10	60	1	.04
03031871 - FIVE MILE RUN AT BROOKVILLE, PA. (LAT 41 08 39 LONG 079 04 42)										
MAR , 1981										
27...	.16	10.5	2600	2400	190	430	10	420	60	5.5
AUG										
14...	.28	1.3	560	470	90	150	10	140	3	.02
03031873 - N FORK NR BLOWTOWN, PA (LAT 41 16 54 LONG 078 55 42)										
MAR , 1981										
24...	.05	1.7	350	290	60	110	10	100	2	.10
AUG										
11...	.04	.97	530	400	130	130	30	100	4	.13
03031900 - BEAVER RUN AT HEATHVILLE, PA (LAT 41 05 25 LONG 079 10 52)										
MAR , 1981										
27...	.36	16.3	4300	2200	2100	1700	0	1700	45	2.8
AUG										
12...	.72	6.9	4300	1200	3100	4000	0	4100	13	.17
03031951 - BIG RUN NEAR SPRANKLE MILLS, PA (LAT 40 59 30 LONG 079 05 26)										
MAR , 1981										
25...	.24	5.7	310	270	40	380	10	370	2	.06
AUG										
12...	.38	2.1	1000	950	50	120	40	80	4	.03

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
REDBANK CREEK BASIN--Continued										
03032025 - PINE C AT MAYPORT, PA (LAT 41 02 20 LONG 079 15 34)										
MAR , 1981										
28...	1230	18	340	7.6	8.0	--	--	24	110	442
AUG										
12...	1530	2.8	565	7.9	23.5	--	--	44	190	410
03032400 - LEATHERWOOD CREEK NEAR NEW BETHLEHEM, PA. (LAT 41 01 12 LONG 079 23 14)										
MAR , 1981										
28...	1400	30	540	7.4	8.0	--	--	18	75	372
AUG										
15...	1130	3.9	1100	7.4	20.5	--	--	43	430	855
03032757 - WILDCAT RN AT DIAMOND, PA (LAT 41 01 04 LONG 079 29 00)										
MAR , 1981										
27...	1630	11	690	5.3	8.0	.4	20	2	430	506
AUG										
14...	1400	1.5	1450	4.2	22.0	.9	45	--	670	1030
03032770 - FIDDLERS RUN NR RIMERSBURG, PA. (LAT 41 00 51 LONG 079 28 40)										
MAR , 1981										
28...	1500	9.2	170	7.5	9.0	--	--	22	41	100
AUG										
14...	1500	.29	390	7.6	22.5	--	--	57	66	249
MAHONING CREEK BASIN										
03033218 - STUMP C NR BIG CREEK, PA (LAT 40 59 07 LONG 078 50 37)										
MAR , 1981										
25...	1215	41	510	7.1	6.0	--	--	42	170	323
AUG										
12...	1030	13	700	7.1	17.0	--	--	63	210	490
03033229 - BIG RUN AT BIG RUN, PA (LAT 40 58 11 LONG 078 53 14)										
MAR , 1981										
25...	1330	11	265	7.5	5.5	--	--	44	43	153
AUG										
12...	1115	3.9	400	7.8	18.5	--	--	80	70	254
03033390 - CANOE C AT CLOE, PA (LAT 40 56 11 LONG 078 56 04)										
MAR , 1981										
25...	1300	44	240	7.4	6.0	--	--	20	68	146
AUG										
12...	1300	17	330	7.5	19.0	--	--	39	94	215
03036007 - SCRUBGRASS CREEK AT GOHEENVILLE, PA (LAT 40 54 45 LONG 079 22 47)										
MAR , 1981										
23...	1615	8.3	365	7.7	7.0	--	--	108	120	235
AUG										
09...	1615	1.2	480	7.9	25.0	--	--	57	150	360
PINE CREEK BASIN										
03036220 - N BR S FK PINE C AT ECHO, PA (LAT 40 51 01 LONG 079 19 41)										
MAR , 1981										
24...	1130	13	155	7.0	3.0	--	--	24	45	92
AUG										
10...	1045	2.7	220	7.6	20.5	--	--	36	42	174

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
REDBANK CREEK BASIN--Continued										
03032025 - PINE C AT MAYPORT, PA (LAT 41 02 20 LONG 079 15 34)										
MAR , 1981										
28...	.60	21.5	560	510	50	1200	0	1400	16	.78
AUG										
12...	.56	3.1	390	380	10	70	30	40	3	.02
03032400 - LEATHERWOOD CREEK NEAR NEW BETHLEHEM, PA. (LAT 41 01 12 LONG 079 23 14)										
MAR , 1981										
28...	.51	30.1	340	290	50	2900	0	3000	12	.97
AUG										
15...	1.1	9.0	1000	950	50	2200	0	2200	10	.11
03032757 - WILDCAT RN AT DIAMOND, PA (LAT 41 01 04 LONG 079 29 00)										
MAR , 1981										
27...	.69	15.0	3300	800	2500	5600	0	6000	27	.80
AUG										
14...	1.4	4.1	2000	1800	190	10000	0	11000	4	.02
03032770 - FIDDLERS RUN NR RIMERSBURG, PA. (LAT 41 00 51 LONG 079 28 40)										
MAR , 1981										
28...	.14	2.4	440	400	40	60	10	50	8	.20
AUG										
14...	.34	.19	510	490	20	70	20	50	12	.01
MAHONING CREEK BASIN--Continued										
03033218 - STUMP C NR BIG CREEK, PA (LAT 40 59 07 LONG 078 50 37)										
MAR , 1981										
25...	.44	35.8	3900	0	4200	530	10	520	15	1.7
AUG										
12...	.67	17.2	1200	1100	80	630	0	640	5	.18
03033229 - BIG RUN AT BIG RUN, PA (LAT 40 58 11 LONG 078 53 14)										
MAR , 1981										
25...	.21	4.5	750	620	130	90	10	80	1	.03
AUG										
12...	.35	2.6	850	810	40	60	20	40	6	.06
03033390 - CANOE C AT CLOE, PA (LAT 40 56 11 LONG 078 56 04)										
MAR , 1981										
25...	.20	17.3	460	300	160	280	0	310	4	.48
AUG										
12...	.29	9.8	420	390	30	340	40	300	3	.14
03036007 - SCRUBGRASS CREEK AT GOHEENVILLE, PA (LAT 40 54 45 LONG 079 22 47)										
MAR , 1981										
23...	.32	5.3	250	230	20	20	0	30	12	.27
AUG										
09...	.49	1.2	100	90	10	10	--	<10	1	.00
PINE CREEK BASIN--Continued										
03036220 - N BR S FK PINE C AT ECHO, PA (LAT 40 51 01 LONG 079 19 41)										
MAR , 1981										
24...	.13	3.3	440	380	60	100	0	110	10	.36
AUG										
10...	.24	1.3	1200	1100	110	350	0	350	36	.27

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
PINE CREEK BASIN--Continued										
03036230 - S BR S FK PINE C NR BRYAN, PA (LAT 40 50 30 LONG 079 18 45)										
MAR , 1981										
24...	1230	5.5	220	7.2	5.0	--	--	92	66	139
AUG										
10...	1145	--	585	7.3	19.5	--	--	86	190	441
03036310 - N FK PINE C AT MOSGROVE, PA (LAT 40 52 28 LONG 079 28 04)										
MAR , 1981										
24...	0950	13	300	7.9	4.0	--	--	154	73	191
AUG										
10...	0915	4.7	490	8.4	19.5	--	--	118	100	321
LIMESTONE RUN BASIN										
03036320 - LIMESTONE RN AT TARRTOWN, PA (LAT 40 51 27 LONG 079 30 32)										
MAR , 1981										
24...	0745	9.4	580	7.3	1.0	--	--	150	300	532
AUG										
11...	0800	4.4	900	7.9	18.0	--	--	58	420	749
COWANSHANNOCK CREEK BASIN										
03036410 - COWANSHANNOCK C NR SUNNYSIDE, PA (LAT 40 49 38 LONG 079 29 37)										
MAR , 1981										
23...	1450	80	235	7.3	7.5	--	--	80	81	177
AUG										
09...	1500	17	520	8.5	25.0	--	--	47	180	366
GLADE RUN BASIN										
03036600 - GLADE RN AT CADOGAN, PA (LAT 40 45 24 LONG 079 34 25)										
MAR , 1981										
23...	1345	22	500	7.5	7.5	--	--	118	180	326
AUG										
09...	1400	7.8	700	8.0	23.5	--	--	60	250	519
CROOKED CREEK BASIN										
03036995 - CROOKED C ABOVE MCKEE RN AT CREEKSIDE, PA (LAT 40 40 59 LONG 079 11 27)										
MAR , 1981										
25...	0900	77	340	7.3	3.0	--	--	126	79	200
AUG										
12...	0800	19	700	7.5	20.0	--	--	80	190	460
03037200 - S BR PLUM C NR GASTOWN, PA (LAT 40 43 25 LONG 079 17 55)										
MAR , 1981										
25...	0745	27	180	7.2	3.5	--	--	62	55	114
AUG										
11...	1400	.61	180	7.5	26.0	--	--	26	36	119
03038100 - CHERRY RN NR BRICK CHURCH, PA (LAT 40 41 19 LONG 079 25 06)										
MAR , 1981										
24...	1500	22	475	9.0	7.0	--	--	254	130	304
AUG										
11...	1500	--	1050	8.7	23.0	--	--	186	--	--
KISKIMINETAS RIVER BASIN										
03039300 - WELLS C AT MOSTOLLER, PA (LAT 40 04 11 LONG 078 56 45)										
APR , 1981										
02...	1620	27	370	4.4	11.5	.4	20	--	130	216
AUG										
10...	1700	3.9	823	3.1	20.5	1.0	50	--	300	520

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COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
PINE CREEK BASIN--Continued										
03036230 - S BR S FK PINE C NR BRYAN, PA (LAT 40 50 30 LONG 079 18 45)										
MAR , 1981										
24...	.19	2.0	410	340	70	770	0	840	14	.21
AUG										
10...	.60	--	1800	1700	60	2700	200	2500	36	--
03036310 - N FK PINE C AT MOSGROVE, PA (LAT 40 52 28 LONG 079 28 04)										
MAR , 1981										
24...	.26	6.9	180	140	40	10	0	210	8	.29
AUG										
10...	.44	4.1	870	840	30	60	30	30	3	.04
LIMESTONE RUN BASIN--Continued										
03036320 - LIMESTONE RN AT TARRTOWN, PA (LAT 40 51 27 LONG 079 30 32)										
MAR , 1981										
24...	.72	13.6	380	300	80	2000	0	2000	19	.49
AUG										
11...	1.0	9.0	210	160	50	270	10	260	1	.01
COWANSHANNOCKCREEK BASIN--Continued										
03036410 - COWANSHANNOCK C NR SUNNYSIDE, PA (LAT 40 49 38 LONG 079 29 37)										
MAR , 1981										
23...	.24	38.2	1200	1100	140	420	10	410	16	3.5
AUG										
09...	.50	17.7	720	680	40	190	20	170	1	.05
GLADE RUN BASIN--Continued										
03036600 - GLADE RN AT CADOGAN, PA (LAT 40 45 24 LONG 079 34 25)										
MAR , 1981										
23...	.44	19.4	700	450	250	550	0	570	12	.71
AUG										
09...	.71	11.0	1100	1100	40	110	20	90	1	.02
CROOKED CREEK BASIN--Continued										
03036995 - CROOKED C ABOVE MCKEE RN AT CREEKSIDE, PA (LAT 40 40 59 LONG 079 11 27)										
MAR , 1981										
25...	.27	41.8	740	580	160	310	100	210	17	3.6
AUG										
12...	.63	23.8	1000	0	1200	170	0	190	5	.26
03037200 - S BR PLUM C NR GASTOWN, PA (LAT 40 43 25 LONG 079 17 55)										
MAR , 1981										
25...	.16	8.3	330	310	20	70	40	30	13	.95
AUG										
11...	.16	.20	330	310	20	40	10	30	1	.00
03038100 - CHERRY RN NR BRICK CHURCH, PA (LAT 40 41 19 LONG 079 25 06)										
MAR , 1981										
24...	.41	18.2	520	480	40	60	10	50	12	.72
AUG										
11...	--	--	--	--	--	--	--	--	1	--
KISKIMINETAS RIVER BASIN--Continued										
03039300 - WELLS C AT MOSTOLLER, PA (LAT 40 04 11 LONG 078 56 45)										
APR , 1981										
02...	.29	15.7	1800	860	940	1100	0	1200	16	1.2
AUG										
10...	.71	5.4	3400	1700	1700	3100	0	3300	2	.02

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COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
KISKIMINETAS RIVER BASIN--Continued										
03039340 - BEAVERDAM C AT STOYSTOWN, PA (LAT 40 05 35 LONG 078 57 16)										
APR , 1981										
02...	1516	24	212	7.4	12.5	--	--	35	42	123
AUG										
10...	1550	4.6	460	7.7	22.0	--	--	100	120	329
03039440 - QUEMAHONING C AT BOSWELL, PA (LAT 40 09 54 LONG 079 01 51)										
APR , 1981										
02...	1332	152	210	6.2	10.0	.2	10	9	60	122
AUG										
12...	1545	15	579	6.4	21.0	.5	25	34	210	374
03039750 - DARK SHADE C AT REITZ, PA (LAT 40 08 03 LONG 078 48 53)										
MAR , 1981										
30...	1715	110	438	3.9	9.5	1.6	79	--	170	270
AUG										
10...	1330	12	950	3.1	18.0	3.9	194	--	450	--
03039920 - LITTLE PAINT CREEK AT SCALP LEVEL, PA (LAT 40 14 46 LONG 078 50 49)										
MAR , 1981										
30...	1445	31	535	3.9	9.5	3.1	154	--	200	312
AUG										
14...	1345	6.1	1350	3.1	24.5	7.1	353	--	560	881
03039950 - S FK BENS C NR FERNDALE, PA (LAT 40 15 02 LONG 078 58 20)										
APR , 1981										
01...	1617	75	211	7.2	11.0	--	--	20	64	132
AUG										
12...	1645	1.5	750	7.1	22.0	--	--	69	190	517
03039957 - BENS C AT FERNDALE, PA (LAT 40 16 58 LONG 078 56 10)										
APR , 1981										
01...	1503	26	94	6.8	9.0	--	--	11	17	48
AUG										
12...	1745	3.8	108	7.1	22.5	--	--	19	16	60
03040100 - L CONEMAUGH R AT WILMORE, PA (LAT 40 23 02 LONG 078 43 11)										
APR , 1981										
01...	0830	128	370	5.4	7.5	.6	30	3	150	236
AUG										
14...	1210	24	930	4.3	18.0	1.5	74	--	460	834
03040110 - HOWELLS RN NR EBENSBURG, PA (LAT 40 26 46 LONG 078 42 56)										
APR , 1981										
01...	0725	18	200	6.8	6.0	--	--	22	29	111
AUG										
13...	1730	21	338	6.7	18.5	--	--	40	34	198
03040511 - S FORK AT SOUKSBURG, PA (LAT 40 20 55 LONG 078 47 04)										
APR , 1981										
01...	1007	188	350	5.3	9.0	.9	45	--	130	199
AUG										
11...	1845	33	1100	3.3	22.0	3.2	159	--	190	693

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
KISKIMINETAS RIVER BASIN--Continued										
03039340 - BEAVERDAM C AT STOYSTOWN, PA (LAT 40 05 35 LONG 078 57 16)										
APR , 1981										
02...	.17	7.9	530	480	50	80	40	40	9	.58
AUG										
10...	.45	4.0	1500	1400	120	130	50	80	7	.09
03039440 - QUEMAHONING C AT BOSWELL, PA (LAT 40 09 54 LONG 079 01 51)										
APR , 1981										
02...	.17	50.1	2200	800	1400	490	0	490	17	7.0
AUG										
12...	.51	15.1	4400	1600	2800	1100	0	1100	11	.45
03039750 - DARK SHADE C AT REITZ, PA (LAT 40 08 03 LONG 078 48 53)										
MAR , 1981										
30...	.37	80.2	17000	0	17000	1600	0	1700	62	18
AUG										
10...	--	--	30000	1000	29000	4700	0	4900	34	1.1
03039920 - LITTLE PAINT CREEK AT SCALP LEVEL, PA (LAT 40 14 46 LONG 078 50 49)										
MAR , 1981										
30...	.42	26.1	89000	50000	39000	1600	100	1500	56	4.7
AUG										
14...	1.2	14.5	78000	40000	38000	2900	0	3000	80	1.3
03039950 - S FK BENS C NR FERNDALE, PA (LAT 40 15 02 LONG 078 58 20)										
APR , 1981										
01...	.18	26.7	2200	2100	110	150	10	140	32	6.5
AUG										
12...	.70	2.0	1200	1200	20	240	60	180	3	.01
03039957 - BENS C AT FERNDALE, PA (LAT 40 16 58 LONG 078 56 10)										
APR , 1981										
01...	.07	3.3	270	230	40	50	30	20	5	.35
AUG										
12...	.08	.62	380	350	30	10	0	20	7	.07
03040100 - L CONEMAUGH R AT WILMORE, PA (LAT 40 23 02 LONG 078 43 11)										
APR , 1981										
01...	.32	81.6	7800	1300	6500	1200	0	1200	23	7.9
AUG										
14...	1.1	54.0	37000	0	37000	3300	0	3600	27	1.7
03040110 - HOWELLS RN NR EBENSBURG, PA (LAT 40 26 46 LONG 078 42 56)										
APR , 1981										
01...	.15	5.3	300	130	170	60	20	40	4	.19
AUG										
13...	.27	11.2	480	410	70	20	10	10	6	.34
03040511 - S FORK AT SOUKSBURG, PA (LAT 40 20 55 LONG 078 47 04)										
APR , 1981										
01...	.27	101	11000	0	13000	940	0	1000	24	12
AUG										
11...	.94	61.7	13000	1000	12000	2800	0	3000	69	6.1

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
KISKIMINETAS RIVER BASIN--Continued										
03041028 - HINCKSTON RUN AT MINERSVILLE, PA (LAT 40 20 27 LONG 078 55 27)										
APR , 1981										
01...	1248	20	1325	3.6	11.0	9.0	447	--	610	1080
AUG										
14...	1015	2.8	3060	4.4	23.0	14	695	--	1600	2720
03041650 - HENDRICKS C NR WEST FAIRFIELD, PA (LAT 40 21 54 LONG 079 08 20)										
APR , 1981										
02...	1014	40	141	7.4	9.0	--	--	20	25	75
AUG										
12...	1150	5.1	201	7.6	21.5	--	--	55	25	110
03041700 - MCGEE RN AT BRENIZER, PA (LAT 40 23 53 LONG 079 15 43)										
MAR , 1981										
27...	0815	66	160	7.5	6.5	--	--	84	--	95
AUG										
08...	1030	13	190	7.2	20.0	--	--	26	41	131
03041710 - DUTCH RN NR BLUE GOOSE, PA (LAT 40 34 39 LONG 078 51 15)										
MAR , 1981										
31...	1226	16	418	7.6	11.5	--	--	68	120	250
AUG										
11...	1400	4.4	680	7.7	19.5	--	--	139	190	456
03041720 - ELK C NR BELSANO, PA (LAT 40 32 13 LONG 078 51 51)										
MAR , 1981										
31...	1348	64	500	6.0	12.5	.2	10	--	190	57
AUG										
11...	1520	12	1900	5.6	23.0	.5	25	5	680	1400
03041800 - SOUTH BRANCH BLACKLICK CREEK AT VINTONDALE, PA (LAT 40 28 52 LONG 078 55 06)										
MAR , 1981										
31...	1545	173	456	4.2	12.5	1.2	60	--	180	291
AUG										
11...	1720	34	1500	3.5	23.5	--	--	--	710	1010
03041900 - BRUSH C AT CLAGHORN, PA (LAT 40 29 48 LONG 079 04 03)										
MAR , 1981										
25...	1515	43	115	6.8	5.5	.7	35	22	26	68
AUG										
11...	1500	5.2	175	7.4	23.0	--	--	20	38	103
03042040 - S BR TWO LICK C NR WANDIN JUNCTION, PA (LAT 40 40 29 LONG 078 56 41)										
MAR , 1981										
25...	1200	29	135	7.0	3.0	--	--	56	29	71
AUG										
12...	1030	3.7	240	8.5	20.5	--	--	60	38	147
03042061 - DIXON RN AT CLYMER, PA (LAT 40 40 13 LONG 079 00 54)										
MAR , 1981										
25...	1015	15	390	6.6	4.0	.7	35	52	140	257
AUG										
12...	0930	6.2	620	7.3	18.5	--	--	38	160	430

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
KISKIMINETAS RIVER BASIN--Continued										
03041028 - HINCKSTON RUN AT MINERSVILLE, PA (LAT 40 20 27 LONG 078 55 27)										
APR , 1981										
01...	1.4	58.3	18000	0	18000	8000	0	8500	428	23
AUG										
14...	3.7	20.6	310000	30000	280000	30000	0	31000	92	.70
03041650 - HENDRICKS C NR WEST FAIRFIELD, PA (LAT 40 21 54 LONG 079 08 20)										
APR , 1981										
02...	.10	8.1	260	230	30	40	20	20	4	.43
AUG										
12...	.15	1.5	790	710	80	40	20	20	7	.10
03041700 - MCGEE RN AT BRENIZER, PA (LAT 40 23 53 LONG 079 15 43)										
MAR , 1981										
27...	.13	17.1	--	--	--	--	--	--	126	23
AUG										
08...	.18	4.8	330	300	30	110	0	110	3	.11
03041710 - DUTCH RN NR BLUE GOOSE, PA (LAT 40 34 39 LONG 078 51 15)										
MAR , 1981										
31...	.34	10.8	900	860	40	260	40	220	18	.78
AUG										
11...	.62	5.4	630	580	50	80	50	30	7	.08
03041720 - ELK C NR BELSANO, PA (LAT 40 32 13 LONG 078 51 51)										
MAR , 1981										
31...	.08	9.8	2900	1400	1500	490	30	460	30	5.2
AUG										
11...	1.9	45.4	6800	6100	750	1300	100	1200	36	1.2
03041800 - SOUTH BRANCH BLACKLICK CREEK AT VINTONDALE, PA (LAT 40 28 52 LONG 078 55 06)										
MAR , 1981										
31...	.40	136	10000	0	10000	920	0	1000	18	8.4
AUG										
11...	1.3	92.7	31000	8000	23000	2300	0	2400	52	4.8
03041900 - BRUSH C AT CLAGHORN, PA (LAT 40 29 48 LONG 079 04 03)										
MAR , 1981										
25...	.09	8.0	270	250	20	70	0	90	14	1.7
AUG										
11...	.14	1.4	350	310	40	20	10	10	1	.01
03042040 - S BR TWO LICK C NR WANDIN JUNCTION, PA (LAT 40 40 29 LONG 078 56 41)										
MAR , 1981										
25...	.10	5.5	250	230	20	40	20	20	14	1.1
AUG										
12...	.20	1.4	400	340	60	50	0	60	1	.01
03042061 - DIXON RN AT CLYMER, PA (LAT 40 40 13 LONG 079 00 54)										
MAR , 1981										
25...	.35	10.5	3200	2100	1100	940	230	710	32	1.3
AUG										
12...	.58	7.2	840	660	180	930	0	950	<2	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
KISKIMINETAS RIVER BASIN--Continued										
03042185 - YELLOW C NR PIKES PEAK, PA (LAT 40 34 58 LONG 079 00 10)										
MAR , 1981										
25...	1315	37	310	7.0	4.0	--	--	40	52	186
AUG										
12...	1245	6.8	480	7.7	22.5	--	--	32	110	315
03042230 - L YELLOW C AT SUNCLIFF, PA (LAT 40 33 38 LONG 079 00 39)										
MAR , 1981										
25...	1415	31	165	7.2	4.0	--	--	52	39	99
AUG										
12...	1345	5.0	420	8.1	22.5	--	--	63	140	309
03043990 - AULTMANS RN NR LEWISVILLE, PA (LAT 40 30 02 LONG 079 17 39)										
MAR , 1981										
26...	0800	18	460	6.6	3.0	.7	35	24	190	315
AUG										
12...	1645	4.5	950	6.8	23.0	.2	10	12	400	747
03044800 - LOYALHANNA C AT RECTOR, PA (LAT 40 11 42 LONG 079 14 15)										
APR , 1981										
02...	1136	36	97	7.1	11.0	--	--	14	15	52
AUG										
12...	1325	4.0	143	6.3	22.5	--	--	34	13	77
03044850 - MILL C AT LIGONIER, PA (LAT 40 14 50 LONG 079 14 48)										
APR , 1981										
02...	0843	69	198	6.9	7.0	--	--	18	57	116
AUG										
12...	0810	18	333	7.0	19.0	--	--	50	100	229
03044990 - FOURMILE RN AT DARLINGTON, PA (LAT 40 15 26 LONG 079 17 11)										
APR , 1981										
02...	0740	61	137	7.2	9.0	--	--	15	29	79
AUG										
12...	0920	21	167	6.1	20.0	--	--	28	37	112
03045480 - CRABTREE C AT CRABTREE, PA (LAT 40 21 43 LONG 079 27 18)										
MAR , 1981										
27...	1030	33	1250	6.7	9.5	14	695	280	570	887
AUG										
08...	1300	24	1500	6.5	19.0	3.1	154	68	680	1150
03046150 - WHITETHORN CREEK NEAR SHIELDSBURG, PA (LAT 40 23 36 LONG 079 28 52)										
MAR , 1981										
27...	1130	4.4	305	7.7	7.5	--	--	132	81	194
AUG										
08...	1600	1.5	455	7.8	24.0	.1	5.0	56	120	299
03047480 - BLACKLEGS C AT CLARKSBURG, PA (LAT 40 32 14 LONG 079 22 33)										
MAR , 1981										
26...	0930	25	490	7.9	3.0	--	--	180	190	328
AUG										
13...	0745	7.1	950	8.1	17.5	--	--	98	370	713

BEST DOCUMENT AVAILABLE

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
KISKIMINETAS RIVER BASIN--Continued										
03042185 - YELLOW C NR PIKES PEAK, PA (LAT 40 34 58 LONG 079 00 10)										
MAR , 1981										
25...	.25	18.8	460	400	60	200	0	210	11	1.1
AUG										
12...	.43	5.8	300	270	30	70	30	40	1	.02
03042230 - L YELLOW C AT SUNCLIFF, PA (LAT 40 33 38 LONG 079 00 39)										
MAR , 1981										
25...	.13	8.4	280	250	30	60	0	60	12	1.0
AUG										
12...	.42	4.2	150	120	30	<10	--	10	1	.01
03043990 - AULTMANS RN NR LEWISVILLE, PA (LAT 40 30 02 LONG 079 17 39)										
MAR , 1981										
26...	.43	16.0	3400	500	2900	1100	0	1200	28	1.4
AUG										
12...	1.0	9.2	2200	700	1500	2700	100	2600	3	.04
03044800 - LOYALHANNA C AT RECTOR, PA (LAT 40 11 42 LONG 079 14 15)										
APR , 1981										
02...	.07	5.0	390	340	50	90	50	40	4	.39
AUG										
12...	.10	.83	940	780	160	160	100	60	8	.09
03044850 - MILL C AT LIGONIER, PA (LAT 40 14 50 LONG 079 14 48)										
APR , 1981										
02...	.16	21.6	360	320	40	110	10	100	3	.56
AUG										
12...	.31	11.1	1800	1800	50	250	80	170	43	2.1
03044990 - FOURMILE RN AT DARLINGTON, PA (LAT 40 15 26 LONG 079 17 11)										
APR , 1981										
02...	.11	13.0	270	230	40	90	30	60	3	.49
AUG										
12...	.15	6.3	1300	1200	80	80	40	40	14	.79
03045480 - CRABTREE C AT CRABTREE, PA (LAT 40 21 43 LONG 079 27 18)										
MAR , 1981										
27...	1.2	79.0	46000	6000	40000	2100	0	2100	114	10
AUG										
08...	1.5	74.8	52000	4000	48000	2800	0	2900	50	3.3
03046150 - WHITETHORN CREEK NEAR SHIELDSBURG, PA (LAT 40 23 36 LONG 079 28 52)										
MAR , 1981										
27...	.26	2.3	1700	1600	80	580	210	370	40	.48
AUG										
08...	.41	1.2	800	460	340	500	0	670	2	.01
03047480 - BLACKLEGS C AT CLARKSBURG, PA (LAT 40 32 14 LONG 079 22 33)										
MAR , 1981										
26...	.45	22.4	710	660	50	1000	60	940	15	1.0
AUG										
13...	.97	13.8	300	260	40	1600	100	1500	4	.08

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
KISKIMINETAS RIVER BASIN--Continued										
03047497 - LONG RN NR MAYSVILLE, PA (LAT 40 32 45 LONG 079 27 21)										
MAR , 1981										
26...	1040	4.4	1000	8.2	5.0	--	--	160	500	774
AUG										
13...	0900	4.0	2450	8.0	18.0	--	--	66	970	2260
03048200 - ROARING RN NR ORCHARD HILLS, PA (LAT 40 34 05 LONG 079 30 56)										
MAR , 1981										
26...	1230	6.7	300	7.6	8.0	--	--	62	97	191
AUG										
13...	1000	1.2	600	7.8	18.5	--	--	34	220	433
03048400 - BEAVER RN AT PAULTON, PA (LAT 40 34 26 LONG 079 34 06)										
MAR , 1981										
26...	1330	16	520	7.3	6.0	--	--	46	97	310
AUG										
13...	1040	6.8	770	8.1	20.0	--	--	10	150	475
03048550 - PINE RN AT WEST VANDERGRIFT, PA (LAT 40 36 15 LONG 079 35 18)										
MAR , 1981										
26...	1445	18	305	7.8	7.0	--	--	120	72	175
AUG										
13...	1220	4.0	820	6.8	21.0	1.0	50	52	280	527
BUFFALO CREEK BASIN										
03048850 - L BUFFALO RN NR FENELTON, PA (LAT 40 51 44 LONG 079 42 27)										
MAR , 1981										
23...	1000	12	230	6.7	3.0	.5	25	84	57	151
AUG										
10...	0945	2.6	400	7.5	20.0	.1	5.0	72	83	259
03048865 - ROUGH RN AT WEST WINFIELD, PA (LAT 40 47 42 LONG 079 41 50)										
MAR , 1981										
23...	1030	31	230	6.7	4.0	.4	20	84	52	144
AUG										
10...	1050	3.7	315	8.5	23.0	--	--	82	59	216
03048950 - L BUFFALO C AT SILVERVILLE, PA (LAT 40 42 26 LONG 079 42 47)										
MAR , 1981										
23...	1220	22	210	7.7	5.0	--	--	66	38	120
AUG										
09...	1245	2.4	260	8.7	22.0	--	--	56	40	152
BULL CREEK BASIN										
03049610 - BULL CREEK AT TARENTUM, PA. (LAT 40 36 54 LONG 079 45 36)										
MAR , 1981										
28...	0820	31	355	7.4	3.0	--	--	116	84	215
AUG										
13...	1445	5.4	1150	9.5	26.0	--	--	62	290	739
PUCKETA CREEK BASIN										
03049630 - PUCKETA CREEK AT NEW KENSINGTON, PA. (LAT 40 33 05 LONG 79 45 03)										
MAR , 1981										
28...	0940	32	390	7.5	4.0	--	--	192	97	243
AUG										
13...	1345	5.8	600	7.7	22.5	--	--	102	150	384

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
KISKIMINETAS RIVER BASIN--Continued										
03047497 - LONG RN NR MAYSVILLE, PA (LAT 40 32 45 LONG 079 27 21)										
MAR , 1981										
26...	1.0	9.3	310	270	40	640	210	430	7	.08
AUG										
13...	3.0	24.6	350	300	50	1000	260	740	1	.01
03048200 - ROARING RN NR ORCHARD HILLS, PA (LAT 40 34 05 LONG 079 30 56)										
MAR , 1981										
26...	.26	3.4	550	530	20	460	130	330	10	.18
AUG										
13...	.59	1.4	550	530	20	330	50	280	1	.00
03048400 - BEAVER RN AT PAULTON, PA (LAT 40 34 26 LONG 079 34 06)										
MAR , 1981										
26...	.42	13.8	2700	600	2100	460	10	470	11	.49
AUG										
13...	.65	8.8	460	440	20	1100	100	1000	2	.04
03048550 - PINE RN AT WEST VANDERGRIFT, PA (LAT 40 36 15 LONG 079 35 18)										
MAR , 1981										
26...	.24	8.9	5500	3600	1900	190	80	110	23	1.2
AUG										
13...	.72	5.6	26000	13000	13000	680	0	720	23	.25
BUFFALO CREEK BASIN--Continued										
03048850 - L BUFFALO RN NR FENELTON, PA (LAT 40 51 44 LONG 079 42 27)										
MAR , 1981										
23...	.21	4.9	660	550	110	240	20	220	8	.26
AUG										
10...	.35	1.8	950	850	100	360	20	340	9	.06
03048865 - ROUGH RN AT WEST WINFIELD, PA (LAT 40 47 42 LONG 079 41 50)										
MAR , 1981										
23...	.20	12.4	370	320	50	100	0	110	11	.94
AUG										
10...	.29	2.1	1700	1700	50	130	50	80	39	.40
03048950 - L BUFFALO C AT SILVERVILLE, PA (LAT 40 42 26 LONG 079 42 47)										
MAR , 1981										
23...	.16	7.1	570	530	40	50	30	20	11	.66
AUG										
09...	.21	1.0	300	--	<10	20	10	10	1	.01
BULL CREEK BASIN--Continued										
03049610 - BULL CREEK AT TARENTUM, PA. (LAT 40 36 54 LONG 079 45 36)										
MAR , 1981										
28...	.29	18.5	370	330	40	190	80	110	12	1.0
AUG										
13...	1.0	10.9	210	170	40	20	0	20	1	.01
PUCKETA CREEK BASIN--Continued										
03049630 - PUCKETA CREEK AT NEW KENSINGTON, PA. (LAT 40 33 05 LONG 079 45 03)										
MAR , 1981										
28...	.33	21.3	740	430	310	190	60	130	12	1.1
AUG										
13...	.52	6.0	2100	2100	10	250	10	240	2	.03

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COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
DEER CREEK BASIN										
03049648 - L DEER C NR ACMETONIA, PA (LAT 40 33 29 LONG 079 50 22)										
MAR , 1981										
28...	1230	8.9	1600	8.1	11.0	--	--	496	580	1090
AUG										
14...	0930	8.5	2200	8.3	20.0	--	--	120	880	1650
PLUM CREEK BASIN										
03049660 - PLUM C AT VERONA, PA (LAT 40 31 10 LONG 079 50 37)										
MAR , 1981										
28...	1100	25	1700	7.5	7.0	--	--	200	530	1140
AUG										
14...	0830	12	2300	7.5	21.0	--	--	66	730	1680
PINE CREEK BASIN										
03049740 - PINE C NR INGOMAR, PA (LAT 40 35 32 LONG 080 00 53)										
MAR , 1981										
21...	1145	14	830	8.1	4.0	--	--	44	66	465
AUG										
17...	0835	3.5	580	8.0	14.5	--	--	90	64	385
GIRTYS RUN BASIN										
03049818 - GIRTYS RUN AT MILLVALE, PA (LAT 40 29 41 LONG 079 58 30)										
MAR , 1981										
21...	1000	6.6	2600	8.4	2.5	--	--	108	110	1430
AUG										
15...	1040	.77	950	8.4	20.5	--	--	169	120	651
MONONGAHELA RIVER BASIN										
03071920 - MEADOW RUN AT DAVISTOWN, PA (LAT 39 45 59 LONG 080 01 15)										
MAR , 1981										
24...	0915	4.6	315	8.2	4.0	--	.0	83	56	193
AUG										
11...	1200	.31	925	8.3	22.0	--	--	244	130	572
03072594 - MOUNTAIN RN AT RUBLE MILLS, PA (LAT 39 47 01 LONG 079 48 39)										
MAR , 1981										
24...	0745	22	115	7.6	2.5	--	--	23	25	73
AUG										
11...	0955	2.6	165	7.8	21.5	--	--	52	18	105
03072760 - BROWNS RN AT RONCO, PA (LAT 39 52 18 LONG 079 54 28)										
MAR , 1981										
24...	1055	12	650	7.6	6.0	--	--	38	260	471
AUG										
11...	1335	.97	925	8.4	23.5	--	--	68	390	767
03072815 - TENMILE CREEK NEAR AMITY, PA (LAT 40 01 11 LONG 080 12 20)										
MAR , 1981										
24...	1310	47	305	8.3	5.5	--	--	104	40	183
AUG										
11...	1520	12	350	8.1	22.5	--	--	137	33	210
03072820 - DANIELS RUN AT WEST ZOLLARSVILLE, PA (LAT 40 01 51 LONG 080 05 32)										
MAR , 1981										
24...	1435	13	3600	8.9	9.0	--	--	176	960	2490
AUG										
11...	1655	4.8	5500	8.5	22.5	--	--	146	2400	4330

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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DEER CREEK BASIN--Continued										
03049648 - L DEER C NR ACMETONIA, PA (LAT 40 33 29 LONG 079 50 22)										
MAR , 1981 28...	1.4	26.3	1200	1200	20	450	110	340	30	.72
AUG 14...	2.2	38.2	340	290	50	110	0	120	1	.02
PLUM CREEK BASIN--Continued										
03049660 - PLUM C AT VERONA, PA (LAT 40 31 10 LONG 079 50 37)										
MAR , 1981 28...	1.5	77.3	1900	1900	30	1000	160	840	28	1.9
AUG 14...	2.2	56.2	220	170	50	710	0	720	173	5.8
PINE CREEK BASIN--Continued										
03049740 - PINE C NR INGOMAR, PA (LAT 40 35 32 LONG 080 00 53)										
MAR , 1981 21...	.63	17.8	360	310	50	210	0	230	13	.50
AUG 17...	.52	3.6	1400	1300	130	190	0	200	19	.18
GIRTYS RUN BASIN--Continued										
03049818 - GIRTYS RUN AT MILLVALE, PA (LAT 40 29 41 LONG 079 58 30)										
MAR , 1981 21...	1.9	25.7	460	400	60	180	0	200	20	.36
AUG 15...	.89	1.3	200	160	40	50	10	40	20	.04
MONONGAHELA RIVER BASIN--Continued										
03071920 - MEADOW RUN AT DAVISTOWN, PA (LAT 39 45 59 LONG 080 01 15)										
MAR , 1981 24...	.26	2.4	380	330	50	70	0	80	12	.15
AUG 11...	.78	.48	870	840	30	80	50	--	26	.01
03072594 - MOUNTAIN RN AT RUBLE MILLS, PA (LAT 39 47 01 LONG 079 48 39)										
MAR , 1981 24...	.10	4.4	170	150	20	40	0	50	7	.43
AUG 11...	.14	.74	260	250	10	40	30	10	1	.01
03072760 - BROWNS RN AT RONCO, PA (LAT 39 52 18 LONG 079 54 28)										
MAR , 1981 24...	.64	15.3	1600	400	1200	1300	100	1200	45	1.5
AUG 11...	1.0	2.0	230	200	30	480	0	490	4	.01
03072815 - TENMILE CREEK NEAR AMITY, PA (LAT 40 01 11 LONG 080 12 20)										
MAR , 1981 24...	.25	23.5	360	310	50	60	20	40	14	1.8
AUG 11...	.29	6.8	600	560	40	50	20	30	7	.23
03072820 - DANIELS RUN AT WEST ZOLLARSVILLE, PA (LAT 40 01 51 LONG 080 05 32)										
MAR , 1981 24...	3.3	92.8	260	200	60	50	0	50	50	1.9
AUG 11...	5.8	56.1	130	130	60	40	10	30	1	.01

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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MONONGAHELA RIVER BASIN--Continued										
03075035 - N BR PIGEON C AT BENTLYVILLE, PA (LAT 40 07 54 LONG 080 00 19)										
MAR , 1981										
24...	1615	7.9	565	8.8	9.0	--	--	136	140	355
AUG										
11...	1810	2.4	910	8.3	23.5	--	--	210	190	530
03075058 - MINGO C AT RIVERVIEW, PA (LAT 40 12 31 LONG 079 57 53)										
MAR , 1981										
25...	1120	14	730	8.6	5.5	--	--	163	190	491
AUG										
12...	1115	3.0	1370	8.0	19.5	--	--	185	480	1010
03075084 - PINEY FORK AT SNOWDEN, PA (LAT 40 16 39 LONG 079 58 34)										
MAR , 1981										
25...	1330	13	1200	7.3	10.0	--	--	76	270	766
AUG										
12...	1340	10	950	7.7	23.0	--	--	107	240	697
03078200 - TUB MILL RN AT WEST SALISBURY, PA (LAT 39 45 13 LONG 079 05 45)										
MAR , 1981										
24...	1400	28	130	6.6	5.5	.3	15	10	36	77
AUG										
13...	0900	3.0	175	7.2	17.0	--	--	28	43	108
03078648 - FLAUGHERTY C AT MEYERSDALE, PA (LAT 39 48 45 LONG 079 01 41)										
MAR , 1981										
25...	0830	136	84	6.9	2.0	--	--	10	16	50
AUG										
13...	1030	3.1	126	7.5	17.5	--	--	33	17	84
03078710 - BLUE LICK C NR MEYERSDALE, PA (LAT 39 50 10 LONG 079 02 27)										
MAR , 1981										
21...	1300	24	404	7.5	3.0	--	--	21	160	286
AUG										
13...	1230	2.7	915	6.5	18.0	.1	5.0	11	460	745
03078720 - TUBS RN AT BEACHDALE, PA (LAT 39 54 08 LONG 079 00 59)										
MAR , 1981										
20...	1200	12	198	5.6	.5	.2	10	2	69	136
AUG										
13...	1430	1.0	405	6.6	16.5	.1	5.0	--	170	322
03078785 - E BR COXES C NR SOMERSET, PA (LAT 39 58 25 LONG 079 05 54)										
MAR , 1981										
20...	0930	37	523	7.2	.5	--	--	26	75	300
AUG										
11...	1430	6.5	720	7.8	21.0	--	--	85	170	493
03078900 - MIDDLE C NR CASSELMAN, PA (LAT 39 54 04 LONG 079 12 32)										
MAR , 1981										
21...	0830	30	119	7.1	.5	--	--	13	17	73
AUG										
11...	1730	450	170	8.8	24.5	--	--	36	26	112

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COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MONONGAHELA RIVER BASIN--Continued										
03075035 - N BR PIGEON C AT BENTLYVILLE, PA (LAT 40 07 54 LONG 080 00 19)										
MAR , 1981										
24...	.48	7.6	330	310	20	90	0	100	44	.95
AUG										
11...	.72	3.4	690	660	30	50	40	10	62	.40
03075058 - MINGO C AT RIVER VIEW, PA (LAT 40 12 31 LONG 079 57 53)										
MAR , 1981										
25...	.67	18.7	330	300	30	50	10	40	30	1.1
AUG										
12...	1.3	8.1	400	360	40	80	10	70	43	.35
03075084 - PINEY FORK AT SNOWDEN, PA (LAT 40 16 39 LONG 079 58 34)										
MAR , 1981										
25...	1.0	28.1	4000	2500	1500	960	10	950	81	3.0
AUG										
12...	.95	18.8	590	560	30	380	30	350	9	.24
03078200 - TUB MILL RN AT WEST SALISBURY, PA (LAT 39 45 13 LONG 079 05 45)										
MAR , 1981										
24...	.10	5.8	590	580	10	190	0	200	15	1.1
AUG										
13...	.15	.87	580	540	40	170	20	150	10	.08
03078648 - FLAUGHERTY C AT MEYERSDALE, PA (LAT 39 48 45 LONG 079 01 41)										
MAR , 1981										
25...	.07	18.4	200	150	50	50	10	40	6	2.2
AUG										
13...	.11	.70	260	220	40	30	20	10	2	.02
03078710 - BLUE LICK C NR MEYERSDALE, PA (LAT 39 50 10 LONG 079 02 27)										
MAR , 1981										
21...	.39	18.5	310	280	30	940	0	950	65	4.2
AUG										
13...	1.0	5.4	550	500	50	2600	0	2700	4	.03
03078720 - TUBS RN AT BEACHDALE, PA (LAT 39 54 08 LONG 079 00 59)										
MAR , 1981										
20...	.18	4.4	210	140	70	870	0	920	13	.42
AUG										
13...	.44	.87	420	320	100	2500	0	2600	7	.02
03078785 - E BR COXES C NR SOMERSET, PA (LAT 39 58 25 LONG 079 05 54)										
MAR , 1981										
20...	.41	30.0	980	900	80	440	30	410	13	1.3
AUG										
11...	.67	8.6	610	580	30	50	10	40	4	.07
03078900 - MIDDLE C NR CASSELMAN, PA (LAT 39 54 04 LONG 079 12 32)										
MAR , 1981										
21...	.10	5.9	510	490	20	70	0	80	21	1.7
AUG										
11...	.15	136	730	700	30	40	30	10	7	8.5

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued										
03079300 - WHITES CREEK AT HARNEDSVILLE, PA (LAT 39 47 07 LONG 079 19 13)										
MAR , 1981										
22...	0800	30	160	6.0	.5	.2	10	4	40	94
AUG										
12...	1400	8.5	214	7.1	22.5	--	--	13	41	144
03081650 - MEADOW RN NR FARMINGTON, PA (LAT 39 50 07 LONG 079 30 30)										
MAR , 1981										
24...	1100	78	132	7.0	3.0	--	--	8	13	82
AUG										
12...	1130	3.2	150	7.2	19.5	--	--	23	9.0	96
03082598 - MOUNTS C AT MOYER, PA (LAT 40 02 50 LONG 079 34 10)										
MAR , 1981										
23...	1535	27	200	8.2	8.5	--	--	30	38	120
AUG										
11...	0750	1.8	256	7.6	20.5	--	--	65	40	162
03082837 - INDIAN C AT WHITE BRIDGE, PA (LAT 39 59 40 LONG 079 25 59)										
MAR , 1981										
24...	0830	211	246	6.9	3.0	--	--	7	42	141
AUG										
12...	0900	35	220	7.6	20.0	--	--	18	56	149
03083045 - JACOBS C NR DAWSON, PA (LAT 40 05 49 LONG 079 39 37)										
MAR , 1981										
23...	1215	102	430	7.0	5.5	--	--	28	90	254
AUG										
10...	1615	12	540	7.1	23.0	--	--	35	170	359
03083095 - BARREN RN NR SMITHTON, PA (LAT 40 08 18 LONG 079 42 17)										
MAR , 1981										
23...	1100	6.3	235	8.4	5.0	--	--	38	37	136
AUG										
10...	1510	.20	385	8.1	23.5	--	--	87	28	234
03083150 - SEWICKLEY C NR YOUNGWOOD, PA (LAT 40 13 41 LONG 079 33 52)										
MAR , 1981										
23...	0940	70	640	7.0	5.5	--	--	84	200	410
AUG										
10...	1330	28	900	6.7	19.0	.8	40	97	330	669
03083260 - L SEWICKLEY C AT COWANSBURG, PA (LAT 40 15 22 LONG 079 45 15)										
MAR , 1981										
25...	1515	23	660	8.7	8.5	--	--	108	120	400
AUG										
10...	1125	10	875	7.7	20.0	--	--	166	200	595
03083805 - LONG RN AT VERSAILLES, PA (LAT 40 19 25 LONG 079 50 20)										
MAR , 1981										
25...	1650	4.9	900	8.0	8.0	--	--	82	180	543
AUG										
12...	1515	1.6	905	8.0	23.0	--	--	120	200	628

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
MONONGAHLEA RIVER BASIN--Continued										
03079300 - WHITES CREEK AT HARNEDSVILLE, PA (LAT 39 47 07 LONG 079 19 13)										
MAR , 1981										
22...	.13	7.6	660	630	30	330	0	330	16	1.3
AUG										
12...	.20	2.7	180	--	<10	160	10	150	1	.02
03081650 - MEADOW RN NR FARMINGTON, PA (LAT 39 50 07 LONG 079 30 30)										
MAR , 1981										
24...	.11	17.3	230	220	10	50	0	50	3	.63
AUG										
12...	.13	.83	350	340	10	20	0	30	6	.05
03082598 - MOUNTS C AT MOYER, PA (LAT 40 02 50 LONG 079 34 10)										
MAR , 1981										
23...	.16	8.7	290	260	30	50	0	70	13	.95
AUG										
11...	.22	.79	370	330	40	50	20	30	3	.01
03082837 - INDIAN C AT WHITE BRIDGE, PA (LAT 39 59 40 LONG 079 25 59)										
MAR , 1981										
24...	.19	80.3	1100	1000	100	460	410	50	21	12
AUG										
12...	.20	14.1	450	430	20	320	30	290	5	.47
03083045 - JACOBS C NR DAWSON, PA (LAT 40 05 49 LONG 079 39 37)										
MAR , 1981										
23...	.35	70.0	820	710	110	370	0	370	19	5.2
AUG										
10...	.49	11.6	1200	1200	30	890	100	790	11	.36
03083095 - BARREN RN NR SMITHTON, PA (LAT 40 08 18 LONG 079 42 17)										
MAR , 1981										
23...	.18	2.3	280	240	40	40	0	40	28	.48
AUG										
10...	.32	.13	380	290	90	40	10	30	2	.00
03083150 - SEWICKLEY C NR YOUNGWOOD, PA (LAT 40 13 41 LONG 079 33 52)										
MAR , 1981										
23...	.56	77.8	7800	100	7700	540	0	560	35	6.6
AUG										
10...	.91	50.8	13000	5000	8000	1000	0	1000	25	1.9
03083260 - L SEWICKLEY C AT COWANSBURG, PA (LAT 40 15 22 LONG 079 45 15)										
MAR , 1981										
25...	.54	25.3	530	490	40	360	10	350	13	.82
AUG										
10...	.81	16.1	1100	1000	90	650	0	660	8	.22
03083805 - LONG RN AT VERSAILLES, PA (LAT 40 19 25 LONG 079 50 20)										
MAR , 1981										
25...	.74	7.2	1100	1000	60	240	0	240	13	.17
AUG										
12...	.85	2.7	550	510	40	250	10	240	1	.00

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued										
03083975 - TURTLE CREEK AT MURRYSVILLE, PA (LAT 40 25 37 LONG 079 41 56)										
MAR , 1981										
27...	1250	19	580	5.9	8.0	1.0	50	18	210	392
AUG										
08...	0900	8.3	700	4.3	19.0	.6	30	0	280	542
03084800 - THOMPSON RN AT TURTLE CREEK (LAT 40 24 19 LONG 079 49 41)										
MAR , 1981										
23...	0740	20	1450	7.5	4.5	--	--	39	340	955
AUG										
15...	0730	11	1060	7.5	19.0	--	--	50	290	829
03084900 - BRUSH C AT WESTMORELAND CITY, PA (LAT 40 20 02 LONG 079 40 18)										
MAR , 1981										
27...	1415	30	600	8.3	9.0	--	--	208	63	363
AUG										
08...	0720	18	445	7.6	20.0	--	--	62	58	292
CHARTIERS CREEK BASIN										
03085237 - CHARTIERS C AT HOUSTON, PA (LAT 40 14 26 LONG 080 12 31)										
MAR , 1981										
25...	0825	48	910	8.0	6.0	--	--	152	210	595
AUG										
12...	0810	28	895	7.8	20.5	--	--	134	220	606
03085240 - CHARTIERS RN AT HOUSTON, PA (LAT 40 14 54 LONG 080 12 39)										
MAR , 1981										
25...	0715	15	670	7.8	5.0	--	--	148	190	455
AUG										
12...	0710	8.8	725	8.0	18.0	--	--	166	210	518
03085300 - LITTLE CHARTIERS C AT LINDEN, PA (LAT 40 14 14 LONG 080 08 20)										
MAR , 1981										
25...	0950	29	515	8.7	5.0	--	--	140	69	305
AUG										
12...	0930	11	715	8.2	20.0	--	--	175	86	443
03085497 - ROBINSON RN AT EWINGSVILLE, PA (LAT 40 23 38 LONG 080 06 40)										
MAR , 1981										
21...	1620	47	1250	5.1	7.5	.6	30	--	620	974
AUG										
13...	0825	20	1280	5.1	17.0	.3	15	2	680	1150
LOWERIES RUN BASIN										
03085950 - LOWRIES RN AT EMSWORTH, PA (LAT 40 30 46 LONG 080 05 30)										
MAR , 1981										
21...	1345	15	830	9.0	6.0	--	--	60	66	469
AUG										
17...	0955	4.5	560	8.4	14.5	--	--	101	62	421
MONTOUR CREEK BASIN										
03085960 - MONTOUR C AT CORAOPOLIS, PA (LAT 40 30 18 LONG 080 08 42)										
MAR , 1981										
21...	1500	39	930	7.5	7.5	--	--	70	280	630
AUG										
17...	1110	10	1050	7.4	17.5	--	--	84	360	789

BEST DOCUMENT AVAILABLE

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
MONONGAHLEA RIVER BASIN--Continued										
03083975 - TURTLE CREEK AT MURRYSVILLE, PA (LAT 40 25 37 LONG 079 41 56)										
MAR , 1981										
27...	.53	21.0	5400	4400	1000	1200	200	1000	85	4.5
AUG										
08...	.74	12.2	2300	2200	90	2000	0	2100	9	.20
03084800 - THOMPSON RN AT TURTLE CREEK (LAT 40 24 19 LONG 079 49 41)										
MAR , 1981										
23...	1.3	53.1	880	810	70	870	40	830	39	2.2
AUG										
15...	1.1	24.6	2200	2200	30	680	140	540	13	.39
03084900 - BRUSH C AT WESTMORELAND CITY, PA (LAT 40 20 02 LONG 079 40 18)										
MAR , 1981										
27...	.49	30.1	850	830	20	240	110	130	35	2.9
AUG										
08...	.40	14.8	340	310	30	110	0	110	2	.10
CHARTIERS CREEK BASIN--Continued										
03085237 - CHARTIERS C AT HOUSTON, PA (LAT 40 14 26 LONG 080 12 31)										
MAR , 1981										
25...	.81	77.8	460	420	40	210	10	200	13	1.7
AUG										
12...	.82	45.8	470	420	50	100	20	80	2	.15
03085240 - CHARTIERS RN AT HOUSTON, PA (LAT 40 14 54 LONG 080 12 29)										
MAR , 1981										
25...	.62	18.4	540	480	60	360	0	390	51	2.1
AUG										
12...	.70	12.3	490	460	30	210	20	190	18	.43
03085300 - LITTLE CHARTIERS C AT LINDEN, PA (LAT 40 14 14 LONG 080 08 20)										
MAR , 1981										
25...	.41	24.1	360	310	50	50	0	50	54	4.3
AUG										
12...	.60	13.2	380	350	30	40	20	20	41	1.2
03085497 - ROBINSON RN AT EWINGSVILLE, PA (LAT 40 23 38 LONG 080 06 40)										
MAR , 1981										
21...	1.3	125	3200	0	3500	2400	0	2400	60	7.7
AUG										
13...	1.5	62.1	1000	900	100	2800	100	2700	9	.49
LOWERIES RUN BASIN--Continued										
03085950 - LOWRIES RN AT EMSWORTH, PA (LAT 40 30 46 LONG 080 05 30)										
MAR , 1981										
21...	.64	19.8	380	360	20	50	20	30	70	2.9
AUG										
17...	.57	5.1	170	150	20	10	--	<10	1	.01
MONTOUR CREEK BASIN--Continued										
03085960 - MONTOUR C AT CORAOPOLIS, PA (LAT 40 30 18 LONG 080 08 42)										
MAR , 1981										
21...	.86	67.0	1300	1100	170	1500	0	1600	68	7.2
AUG										
17...	1.0	21.3	670	590	80	640	0	640	12	.32

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
CROWS RUN BASIN										
03086400 - CROWS RN NR FREEDOM, PA (LAT 40 40 52 LONG 080 13 20)										
MAR , 1981										
27...	0955	10	408	8.1	4.5	--	--	38	56	229
AUG										
14...	1335	118	367	8.1	21.5	--	--	72	56	227
BEAVER RIVER BASIN										
03102810 - BIG RN NR REYNOLDS HEIGHTS, PA (LAT 41 21 52 LONG 080 24 30)										
MAR , 1981										
26...	1430	22	215	7.7	6.0	--	--	40	37	119
AUG										
12...	1430	14	215	8.0	22.0	--	--	56	35	159
03104100 - HOGBACK RN AT WEST MIDDLESEX, PA (LAT 41 10 55 LONG 080 27 20)										
MAR , 1981										
26...	1615	4.9	360	9.5	8.0	--	--	62	48	218
AUG										
12...	1630	.06	535	8.3	28.0	--	--	108	64	353
03104550 - OTTER C AT MERCER, PA (LAT 41 13 34 LONG 080 13 28)										
MAR , 1981										
27...	0830	158	160	7.3	4.5	--	--	44	27	94
AUG										
13...	1230	4.7	280	7.6	20.5	--	--	82	37	201
03104584 - YELLOW C NR JACKSON CENTER (LAT 41 15 00 LONG 080 10 21)										
MAR , 1981										
27...	1015	194	275	7.5	4.5	--	--	40	69	174
AUG										
13...	1400	4.7	640	8.3	19.0	--	--	154	210	555
03104900 - L NESHANNOCK CREEK AT MAYSVILLE, PA (LAT 41 05 21 LONG 080 18 53)										
MAR , 1981										
27...	1200	--	195	7.3	4.5	--	--	42	35	123
AUG										
13...	0800	5.3	350	7.9	19.0	--	--	116	40	251
03104996 - HOTTENBAUGH RN AT EASTBROOK, PA (LAT 41 02 21 LONG 080 17 42)										
MAR , 1981										
27...	1530	54	290	8.0	5.0	--	--	60	54	177
AUG										
13...	0930	3.8	650	8.3	18.0	--	--	204	170	546
03105248 - BIG RUN AT NEW CASTLE, PA (LAT 40 59 04 LONG 080 21 00)										
MAR , 1981										
27...	1400	120	305	8.0	5.0	--	--	64	40	187
AUG										
13...	1100	3.5	530	8.3	20.5	--	--	180	67	377
03105700 - BONNIE BK AT EAST BUTLER, PA (LAT 40 52 34 LONG 079 51 02)										
MAR , 1981										
23...	0745	14	300	6.8	3.0	.4	20	140	38	175
AUG										
10...	0830	1.9	555	7.4	20.0	--	--	78	56	352

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
CROWS RUN BASIN--Continued										
03086400 - CROWS RN NR FREEDOM, PA (LAT 40 40 52 LONG 080 13 20)										
MAR , 1981										
27...	.31	6.2	270	250	20	40	20	20	15	.41
AUG										
14...	.31	72.3	150	130	20	10	0	10	1	.32
BEAVER RIVER BASIN--Continued										
03102810 - BIG RN NR REYNOLDS HEIGHTS, PA (LAT 41 21 52 LONG 080 24 30)										
MAR , 1981										
26...	.16	7.3	270	170	100	40	10	30	3	.19
AUG										
12...	.22	6.2	720	560	160	70	20	50	14	.55
03104100 - HOGBACK RN AT WEST MIDDLESEX, PA (LAT 41 10 55 LONG 080 27 20)										
MAR , 1981										
26...	.30	2.9	90	0	90	30	10	20	12	.16
AUG										
12...	.48	.06	220	170	50	140	30	110	3	.00
03104550 - OTTER C AT MERCER, PA (LAT 41 13 34 LONG 080 13 28)										
MAR , 1981										
27...	.13	40.1	1300	1200	130	100	50	50	44	19
AUG										
13...	.27	2.5	780	620	160	200	50	150	20	.26
03104584 - YELLOW C NR JACKSON CENTER (LAT 41 15 00 LONG 080 10 21)										
MAR , 1981										
27...	.24	91.1	2200	2100	100	180	70	110	51	27
AUG										
13...	.75	7.0	190	150	40	50	0	50	1	.01
03104900 - L NESHANNOCK CREEK AT MAYSVILLE, PA (LAT 41 05 21 LONG 080 18 58)										
MAR , 1981										
27...	.17	--	5300	5100	190	210	160	50	126	--
AUG										
13...	.34	3.6	510	450	60	140	30	110	17	.25
03104996 - HOTTENBAUGH RN AT EASTBROOK, PA (LAT 41 02 21 LONG 080 17 42)										
MAR , 1981										
27...	.24	25.8	940	870	70	70	30	40	32	4.7
AUG										
13...	.74	5.7	160	120	40	30	0	40	1	.01
03105248 - BIG RUN AT NEW CASTLE, PA (LAT 40 59 04 LONG 080 21 00)										
MAR , 1981										
27...	.25	60.6	2400	2300	120	140	80	60	65	21
AUG										
13...	.51	3.5	210	180	30	30	0	30	1	.01
03105700 - BONNIE BK AT EAST BUTLER, PA (LAT 40 52 34 LONG 079 51 02)										
MAR , 1981										
23...	.24	6.9	580	470	110	160	0	190	8	.32
AUG										
10...	.48	1.8	780	670	110	300	10	290	3	.02

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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BEAVER RIVER BASIN--Continued										
03105808 - THORN C AT RENFREW, PA. (LAT 40 48 18 LONG 079 57 14)										
MAR , 1981										
28...	1500	45	308	8.6	5.0	--	--	30	39	162
AUG										
15...	1530	4.7	600	7.8	21.5	--	--	90	39	380
03105845 - GLADE RN NR GLADE MILLS, PA (LAT 40 44 22 LONG 079 58 34)										
MAR , 1981										
27...	1535	24	255	9.1	6.5	--	--	38	37	146
AUG										
14...	1535	.77	460	7.9	23.5	--	--	104	56	274
03105920 - BREAKNECK C AT EIDENAU, PA (LAT 40 47 38 LONG 080 05 39)										
MAR , 1981										
23...	1715	35	280	8.8	8.5	<.1	--	42	45	171
AUG										
14...	1400	1.7	640	9.1	23.0	--	--	140	54	383
03105930 - L CONNOQUENESSING C NR HARMONY, PA (LAT 40 49 26 LONG 080 05 52)										
MAR , 1981										
23...	1540	37	250	7.3	5.0	--	--	26	39	147
AUG										
14...	1130	2.3	390	7.8	23.0	--	--	64	55	256
03105938 - L YELLOW C NR MIDDLE LANCASTER, PA (LAT 40 51 20 LONG 080 06 03)										
MAR , 1981										
23...	1410	4.6	360	7.7	7.0	--	--	70	66	207
AUG										
14...	1030	.48	625	7.9	20.5	--	--	170	140	455
03105995 - CAMP RN AT FOMBELL, PA (LAT 40 48 32 LONG 080 12 05)										
MAR , 1981										
23...	1045	11	455	7.8	5.0	--	--	48	150	306
AUG										
14...	1545	1.1	670	8.3	23.0	--	--	74	240	520
03106018 - BRUSH C NR HAZEN, PA (LAT 40 48 14 LONG 080 14 27)										
MAR , 1981										
23...	1230	41	505	8.1	5.0	--	--	46	57	283
AUG										
15...	0815	3.1	595	9.3	24.5	--	--	64	62	380
03106030 - SLIPPERY ROCK CREEK AT BOYERS, PA. (LAT 41 06 34 LONG 079 54 30)										
MAR , 1981										
28...	0830	75	275	5.1	7.0	.4	20	8	120	208
AUG										
15...	1000	8.3	690	4.3	20.5	.7	35	--	310	546
03106035 - NB SLIPPERY ROCK CREEK AT ATWELLS CROSSING, PA (LAT 41 06 00 LONG 079 55 59)										
MAR , 1981										
28...	1015	39	208	7.1	4.0	--	--	20	54	138
AUG										
15...	1100	3.2	325	7.4	20.0	--	--	38	100	259

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
BEAVER RIVER BASIN--Continued										
03105808 - THORN C AT RENFREW, PA. (LAT 40 48 18 LONG 079 57 12)										
MAR , 1981										
28...	.22	19.8	290	250	40	60	0	60	10	1.2
AUG										
15...	.52	4.8	550	490	60	340	70	270	14	.18
03105845 - GLADE RN NR GLADE MILLS, PA (LAT 40 44 22 LONG 079 58 34)										
MAR , 1981										
27...	.20	9.7	380	340	40	60	20	40	15	1.0
AUG										
14...	.37	.57	430	340	90	70	20	50	11	.02
03105920 - BREAKNECK C AT EIDENAU, PA (LAT 40 47 38 LONG 080 05 39)										
MAR , 1981										
23...	.23	16.6	420	400	20	100	0	110	8	.78
AUG										
14...	.52	1.8	950	880	70	600	250	350	34	.16
03105930 - L CONNOQUENESSING C NR HARMONY, PA (LAT 40 49 26 LONG 080 05 52)										
MAR , 1981										
23...	.20	15.0	410	320	90	180	40	140	2	.20
AUG										
14...	.35	1.6	720	660	60	220	60	160	11	.07
03105938 - L YELLOW C NR MIDDLE LANCASTER, PA (LAT 40 51 20 LONG 080 06 03)										
MAR , 1981										
23...	.28	2.6	300	200	100	240	0	270	1	.01
AUG										
14...	.62	.60	320	280	40	470	10	460	13	.02
03105995 - CAMP RN AT FOMBELL, PA (LAT 40 48 32 LONG 080 12 05)										
MAR , 1981										
23...	.42	9.1	170	150	20	200	20	180	3	.09
AUG										
14...	.71	1.6	210	170	40	50	20	30	13	.04
03106018 - BRUSH C NR HAZEN, PA (LAT 40 48 14 LONG 080 14 27)										
MAR , 1981										
23...	.38	31.8	370	350	20	150	10	140	3	.34
AUG										
15...	.52	3.1	1100	890	210	380	260	120	45	.38
03106030 - SLIPPERY ROCK CREEK AT BOYERS, PA. (LAT 41 06 34 LONG 079 54 30)										
MAR , 1981										
28...	.28	42.3	670	280	390	2100	0	2100	2	.41
AUG										
15...	.74	12.4	710	230	480	3000	0	3000	1	.02
03106035 - NB SLIPPERY ROCK CREEK AT ATWELLS CROSSING, PA (LAT 41 06 00 LONG 079 55 59)										
MAR , 1981										
28...	.19	14.8	890	820	70	420	0	470	11	1.2
AUG										
15...	.35	2.2	740	670	70	340	50	290	13	.11

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
BEAVER RIVER BASIN--Continued										
03106040 - MCMURRAY RN NR BRANCHTON, PA (LAT 41 05 11 LONG 079 58 03)										
MAR , 1981										
28...	1145	23	225	7.4	4.0	--	--	40	47	145
AUG										
15...	1200	2.4	315	7.8	19.0	--	--	120	56	233
03106045 - S BR SLIPPERY ROCK C NR BRANCHTON, PA (LAT 41 03 43 LONG 079 57 52)										
MAR , 1981										
28...	1315	--	275	7.1	5.0	--	--	26	83	176
AUG										
15...	1330	6.2	435	7.5	20.5	--	--	74	120	332
03106108 - E BR WOLF C NR GROVE CITY, PA (LAT 41 12 33 LONG 080 02 18)										
MAR , 1981										
24...	0830	21	285	7.5	2.0	--	--	30	73	179
AUG										
13...	1600	4.0	465	7.4	18.0	--	--	44	150	354
03106160 - JAMISON RUN AT ELLIOTTS MILLS, PA (LAT 41 02 06 LONG 080 08 29)										
MAR , 1981										
23...	0820	17	320	8.1	3.0	--	--	98	53	207
AUG										
14...	0800	2.9	475	8.1	18.5	--	--	176	57	342
RACCOON CREEK BASIN										
03107600 - RACCOON C AT RACCOON, PA (LAT 40 23 01 LONG 080 22 05)										
MAR , 1981										
26...	1255	16	960	6.3	9.5	1.1	55	38	410	711
AUG										
13...	1315	6.5	1800	6.4	19.0	--	--	36	780	1350
03107612 - BRADY RN AT PATTERSON HEIGHTS, PA (LAT 40 43 57 LONG 080 20 11)										
MAR , 1981										
27...	1100	10	470	8.2	5.0	--	--	47	75	297
AUG										
14...	0950	.46	440	7.9	19.5	--	--	65	92	303
03107711 - TRAVERSE C BELOW RACCOON C STATE PARK DAM, PA (LAT 40 30 26 LONG 080 22 42)										
MAR , 1981										
26...	0853	13	252	7.9	2.5	--	--	44	50	--
AUG										
14...	0740	1.5	285	7.7	19.5	--	--	90	38	--
03107800 - SERVICE CREEK NR SHIPPINGPORT, PA (LAT 40 34 10 LONG 080 24 07)										
MAR , 1981										
26...	0950	4.5	285	8.0	2.0	--	--	54	50	184
AUG										
14...	0835	.26	332	7.8	19.0	--	--	97	35	213
LITTLE BEAVER CREEK BASIN										
03109380 - HONEY C NR ENON VALLEY, PA (LAT 40 52 50 LONG 080 28 02)										
MAR , 1981										
27...	1310	54	800	8.0	5.5	--	--	115	180	520
AUG										
14...	1105	4.1	1450	8.1	22.0	--	--	221	560	1190

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
BEAVER RIVER BASIN--Continued										
03106040 - MCMURRAY RN NR BRANCHTON, PA (LAT 41 05 11 LONG 079 58 03)										
MAR , 1981										
28...	.20	9.0	590	510	80	130	0	140	16	1.0
AUG										
15...	.32	1.5	590	460	130	160	30	130	6	.04
03106045 - S BR SLIPPERY ROCK C NR BRANCHTON, PA (LAT 41 03 43 LONG 079 57 52)										
MAR , 1981										
28...	.24	--	680	630	50	750	0	830	29	--
AUG										
15...	.45	5.5	1200	1100	70	1200	200	1000	35	.59
03106108 - E BR WOLF C NR GROVE CITY, PA (LAT 41 12 33 LONG 080 02 18)										
MAR , 1981										
24...	.24	10.4	390	310	80	580	50	530	3	.17
AUG										
13...	.48	3.8	370	310	60	650	0	700	11	.12
03106160 - JAMISON RUN AT ELLIOTTS MILLS, PA (LAT 41 02 06 LONG 080 08 29)										
MAR , 1981										
23...	.28	9.9	360	290	70	80	0	80	5	.24
AUG										
14...	.47	2.7	380	360	20	80	40	40	45	.36
RACCOON CREEK BASIN--Continued										
03107600 - RACCOON C AT RACCOON, PA (LAT 40 23 01 LONG 080 22 05)										
MAR , 1981										
26...	.97	30.9	15000	4000	11000	1900	100	1800	103	4.5
AUG										
13...	1.8	23.7	19000	4000	15000	2500	0	2600	73	1.3
03107612 - BRADY RN AT PATTERSON HEIGHTS, PA (LAT 40 43 57 LONG 080 20 11)										
MAR , 1981										
27...	.40	8.1	140	110	30	20	0	20	11	.30
AUG										
14...	.41	.38	270	240	30	10	--	<10	1	.00
03107711 - TRAVERSE C BELOW RACCOON C STATE PARK DAM, PA (LAT 40 30 26 LONG 080 22 42)										
MAR , 1981										
26...	--	--	520	480	40	120	20	100	15	.53
AUG										
14...	--	--	720	630	90	170	30	140	18	.07
03107800 - SERVICE CREEK NR SHIPPINGPORT, PA (LAT 40 34 10 LONG 080 24 07)										
MAR , 1981										
26...	.25	2.2	240	200	40	50	0	50	9	.11
AUG										
14...	.29	.15	500	460	40	70	30	40	13	.01
LITTLE BEAVER CREEK BASIN--Continued										
03109380 - HONEY C NR ENON VALLEY, PA (LAT 40 52 50 LONG 080 28 02)										
MAR , 1981										
27...	.71	76.4	2100	2100	40	320	40	280	107	16
AUG										
14...	1.6	13.2	410	360	50	390	20	370	45	.50

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

KINGS CREEK BASIN

03110812 - KINGS C NR FLORENCE, PA (LAT 40 25 26 LONG 080 29 22)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
27...	0750	9.6	400	8.0	5.5	--	--	66	110	252
AUG										
13...	1605	1.3	510	8.3	22.0	--	--	95	160	376

03110825 - N FORK AT HUGHES LAKE, PA (LAT 40 29 24 LONG 080 30 38)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
26...	1115	7.4	263	8.0	4.5	--	--	50	51	160
AUG										
13...	1450	1.1	315	8.1	22.5	--	--	100	38	201

HARMON CREEK BASIN

03110920 - HARMON C NR HANLIN STATION, PA (LAT 40 21 56 LONG 080 30 34)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
26...	1650	17	1500	8.0	9.0	--	--	72	700	1220
AUG										
13...	1710	6.8	1510	8.0	23.0	--	--	68	790	1350

CROSS CREEK BASIN

03111003 - CROSS C NR AVELLA, PA (LAT 40 15 04 LONG 080 24 49)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
26...	1525	5.1	400	8.6	10.5	--	--	142	51	246
AUG										
13...	1015	2.4	445	8.1	18.5	--	--	192	37	296

03111005 - N FK CROSS C AT AVELLA, PA (LAT 40 16 38 LONG 080 27 41)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAR , 1981										
26...	1420	15	515	8.0	8.0	--	--	158	100	329
AUG										
13	1115	6.2	585	8.0	19.5	--	--	165	140	396

COAL HYDROLOGY NETWORK
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
KINGS CREEK BASIN--Continued										
03110812 - KINGS C NR FLORENCE, PA (LAT 40 25 26 LONG 080 29 22)										
MAR , 1981 27...	.34	6.5	730	690	40	60	0	60	26	.68
AUG 13...	.51	1.3	320	300	20	40	40	0	1	.00
03110825 - N FORK AT HUGHES LAKE, PA (LAT 40 29 24 LONG 080 30 38)										
MAR , 1981 26...	.22	3.2	380	320	60	100	10	90	13	.26
AUG 13...	.27	.60	750	680	70	120	30	90	18	.05
HARMON CREEK BASIN--Continued										
03110920 - HARMON C NR HANLIN STATION, PA (LAT 40 21 56 LONG 080 30 34)										
MAR , 1981 26...	1.6	57.3	680	640	40	1600	0	1700	19	.89
AUG 13...	1.8	24.8	830	780	50	1100	100	1000	1	.02
CROSS CREEK BASIN--Continued										
03111003 - CROSS C NR AVELLA, PA (LAT 40 15 04 LONG 080 24 49)										
MAR , 1981 26...	.33	3.3	280	270	10	30	0	30	76	1.0
AUG 13...	.40	1.9	620	560	60	50	30	20	77	.50
03111005 - N FK CROSS C AT AVELLA, PA (LAT 40 16 38 LONG 080 27 41)										
MAR , 1981 26...	.45	13.5	860	830	30	160	0	160	30	1.2
AUG 13...	.54	6.6	830	790	40	170	30	140	22	.37

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MONONGAHELA RIVER BASIN										
03062966 - CROOKED RUN NEAR POINT MARION, PA # 215 (LAT 39 43 17 LONG 079 55 33)										
AUG , 1981 20...	0830	.01	825	7.7	14.0	350	2.0	100	25	31
03071704 - UNNAMED TRIBUTARY AT DILLNER, PA # 216 (LAT 39 45 00 LONG 079 55 06)										
AUG , 1981 19...	1900	.03	1350	2.8	18.0	380	260	97	33	4.1
03071706 - UNNAMED TRIBUTARY AT DILLNER, PA # 217 (LAT 39 45 05 LONG 079 55 30)										
AUG , 1981 19...	1820	.01	1500	2.1	17.5	340	290	86	31	5.0
03071708 - UNNAMED TRIBUTARY AT POLAND MINES, PA # 218 (LAT 39 45 28 LONG 079 55 59)										
AUG , 1981 19...	1800	.06	2000	2.3	18.5	660	390	180	52	8.6
03071800 - GARRISON FORK AT JOLLYTOWN, PA # 301 (LAT 39 43 42 LONG 080 19 54)										
AUG , 1981 19...	0940	.20	213	7.8	14.5	95	1.0	29	5.5	10
03071803 - TOMS RUN NEAR PINE BANK, PA # 319 (LAT 39 46 30 LONG 080 19 06)										
AUG , 1981 19...	0825	.05	275	7.7	14.5	140	4.0	41	8.0	8.6
03071805 - TOMS RUN AT BRAVE, PA # 302 (LAT 39 43 52 LONG 080 16 53)										
AUG , 1981 19...	1030	.44	253	8.0	16.5	110	1.0	35	6.6	9.9
03071807 - PENNSYLVANIA FORK DUNKARD CK AT BRAVE, PA # 304 (LAT 39 43 19 LONG 080 16 14)										
AUG , 1981 19...	1125	1.3	421	8.0	18.0	100	.5	31	5.8	54
03071815 - WEST VIRGINIA FORK AT BRAVE, PA # 303 (LAT 39 43 18 LONG 080 16 21)										
AUG , 1981 19...	1220	1.7	400	7.7	17.0	120	1.0	37	7.3	38

ANALYSIS OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued									
03062966 - CROOKED RUN NEAR POINT MARION, PA # 215 (LAT 39 43 17 LONG 079 55 33)									
AUG , 1981 20...	7.4	--	--	60	340	6.7	.2	6.7	608
03071704 - UNNAMED TRIBUTARY AT DILLNER, PA # 216 (LAT 39 45 00 LONG 079 55 06)									
AUG , 1981 19...	2.4	--	--	--	590	1.3	.3	52	1000
03071706 - UNNAMED TRIBUTARY AT DILLNER, PA # 217 (LAT 39 45 05 LONG 079 55 30)									
AUG , 1981 19...	1.8	--	--	--	590	2.0	.4	44	951
03071708 - UNNAMED TRIBUTARY AT POLAND MINES, PA # 218 (LAT 39 45 28 LONG 079 55 59)									
AUG , 1981 19...	1.7	--	--	--	910	3.2	.6	55	1620
03071800 - GARRISON FORK AT JOLLYTOWN, PA # 301 (LAT 39 43 42 LONG 080 19 54)									
AUG , 1981 19...	1.8	95	--	78	25	2.2	.1	3.5	137
03071803 - TOMS RUN NEAR PINE BANK, PA # 319 (LAT 39 46 30 LONG 080 19 06)									
AUG , 1981 19...	2.2	110	--	88	44	2.1	.1	3.6	191
03071805 - TOMS RUN AT BRAVE, PA # 302 (LAT 39 43 52 LONG 080 16 53)									
AUG , 1981 19...	2.2	110	--	90	35	4.5	.1	2.1	141
03071807 - PENNSYLVANIA FORK DUNKARD CK AT BRAVE, PA # 304 (LAT 39 43 19 LONG 080 16 14)									
AUG , 1981 19...	2.6	100	--	84	57	40	.1	2.0	240
03071815 - WEST VIRGINIA FORK AT BRAVE, PA # 303 (LAT 39 43 18 LONG 080 16 21)									
AUG , 1981 19...	2.6	93	--	76	84	20	.1	2.3	269

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MONONGAHELA RIVER BASIN--Continued									
03062966 - CROOKED RUN NEAR POINT MARION, PA # 215 (LAT 39 43 17 LONG 079 55 33)									
AUG , 1981 20...	.75	80	60	80	20	10	20	10	9
03071704 - UNNAMED TRIBUTARY AT DILLNER, PA # 216 (LAT 39 45 00 LONG 079 55 06)									
AUG , 1981 19...	.63	40000	22000	1800	1600	8100	7400	620	530
03071706 - UNNAMED TRIBUTARY AT DILLNER, PA # 217 (LAT 39 45 05 LONG 079 55 30)									
AUG , 1981 19...	.82	24000	12000	7200	7100	3900	3600	400	380
03071708 - UNNAMED TRIBUTARY AT POLAND MINES, PA # 218 (LAT 39 45 28 LONG 079 55 59)									
AUG , 1981 19...	.19	35000	18000	18000	19000	7600	7400	550	520
03071800 - GARRISON FORK AT JOLLYTOWN, PA # 301 (LAT 39 43 42 LONG 080 19 54)									
AUG , 1981 19...	.08	260	<10	420	50	30	30	10	4
03071803 - TOMS RUN NEAR PINE BANK, PA # 319 (LAT 39 46 30 LONG 080 19 06)									
AUG , 1981 19...	.09	130	<10	1000	30	230	190	10	5
03071805 - TOMS RUN AT BRAVE, PA # 302 (LAT 39 43 52 LONG 080 16 53)									
AUG , 1981 19...	.08	130	20	290	30	60	20	<10	<4
03071807 - PENNSYLVANIA FORK DUNKARD CK AT BRAVE, PA # 304 (LAT 39 43 19 LONG 080 16 14)									
AUG , 1981 19...	.01	120	20	290	50	60	50	10	<4
03071815 - WEST VIRGINIA FORK AT BRAVE, PA # 303 (LAT 39 43 18 LONG 080 16 21)									
AUG , 1981 19...	.09	350	<10	720	60	100	80	10	5

ANALYSIS OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MONONGAHELA RIVER BASIN--Continued										
03071825 - ROBERTS RUN NEAR BRAVE, PA # 306 (LAT 39 43 16 LONG 080 12 53)										
AUG , 1981										
19...	1415	.07	940	8.0	19.0	170	2.0	53	10	150
03071830 - RUDOLPH RUN NEAR BRAVE, PA # 307 (LAT 39 43 39 LONG 080 10 39)										
AUG , 1981										
19...	1510	.09	345	8.0	18.0	110	2.0	33	6.8	33
03071840 - SHANNON RUN NEAR MOUNT MORRIS, PA # 308 (LAT 39 43 55 LONG 080 05 48)										
AUG , 1981										
19...	1600	.06	500	7.8	21.0	120	4.0	35	7.1	65
03071860 - DUNKARD CREEK AT MOUNT MORRIS, PA # 309 (LAT 39 44 10 LONG 080 03 58)										
AUG , 1981										
19...	1645	17	802	8.2	22.5	180	1.0	52	13	98
03071920 - MEADOW RUN AT DAVISTOWN, PA # 318 (LAT 39 45 59 LONG 080 01 15)										
MAR , 1981										
24...	0915	4.6	315	8.2	4.0	--	.0	--	--	--
AUG										
11...	1200	.31	925	8.3	22.0	--	--	--	--	--
19...	1840	.17	1000	8.4	18.5	130	--	37	9.8	190
03071925 - UNNAMED TRIBUTARY NEAR MOUNT MORRIS, PA # 310 (LAT 39 43 55 LONG 080 00 43)										
AUG , 1981										
19...	1750	.05	1810	8.0	20.5	820	8.0	210	71	130
03071930 - UNNAMED TRIBUTARY AT TAYLORTOWN, PA # 221 (LAT 39 44 22 LONG 079 59 07)										
AUG , 1981										
20...	1045	.00	1400	8.4	14.5	440	--	110	40	150
03071940 - UNNAMED TRIBUTARY AT TAYLORTOWN, PA # 214 (LAT 39 44 45 LONG 079 58 05)										
AUG , 1981										
20...	1015	.01	2600	6.3	17.0	1400	20	350	130	85
03071945 - UNNAMED TRIBUTARY AT TAYLORTOWN, PA # 213 (LAT 39 44 53 LONG 079 58 20)										
AUG , 1981										
20...	0930	.01	2200	2.7	17.5	620	560	110	83	15

BEST DOCUMENT AVAILABLE

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
MONONGAHELA RIVER BASIN--Continued									
03071825 - ROBERTS RUN NEAR BRAVE, PA # 306 (LAT 39 43 16 LONG 080 12 53)									
AUG , 1981									
19...	.04	150	<10	540	20	110	100	10	<4
03071830 - RUDOLPH RUN NEAR BRAVE, PA # 307 (LAT 39 43 39 LONG 080 10 39)									
AUG , 1981									
19...	.15	120	10	580	40	40	10	10	7
03071840 - SHANNON RUN NEAR MOUNT MORRIS, PA # 308 (LAT 39 43 55 LONG 080 05 48)									
AUG , 1981									
19...	.02	230	<10	380	30	80	50	20	<4
03071860 - DUNKARD CREEK AT MOUNT MORRIS, PA # 309 (LAT 39 44 10 LONG 080 03 58)									
AUG , 1981									
19...	.02	110	10	510	10	50	10	10	<4
03071920 - MEADOW RUN AT DAVISTOWN, PA # 318 (LAT 39 45 59 LONG 080 01 15)									
MAR , 1981									
24...	--	--	--	380	50	70	80	--	--
AUG									
11...	--	--	--	870	30	80	--	--	--
19...	.04	260	20	260	30	30	10	10	<4
03071925 - UNNAMED TRIBUTARY NEAR MOUNT MORRIS, PA # 310 (LAT 39 43 55 LONG 080 00 43)									
AUG , 1981									
19...	.20	10	10	130	30	420	400	10	--
03071930 - UNNAMED TRIBUTARY AT TAYLORTOWN, PA # 221 (LAT 39 44 22 LONG 079 59 07)									
AUG , 1981									
20...	.56	400	40	770	20	90	20	20	5
03071940 - UNNAMED TRIBUTARY AT TAYLORTOWN, PA # 214 (LAT 39 44 45 LONG 079 58 05)									
AUG , 1981									
20...	.06	500	100	2400	860	2800	2800	90	80
03071945 - UNNAMED TRIBUTARY AT TAYLORTOWN, PA # 213 (LAT 39 44 53 LONG 079 58 20)									
AUG , 1981									
20...	.03	350	22000	52000	64000	2200	36000	340	850

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued									
03071825 - ROBERTS RUN NEAR BRAVE, PA						# 306 (LAT 39 43 16 LONG 080 12 53)			
AUG , 1981									
19...	4.0	150	--	120	32	210	.1	2.3	545
03071830 - RUDOLPH RUN NEAR BRAVE, PA						# 307 (LAT 39 43 39 LONG 080 10 39)			
AUG , 1981									
19...	2.7	120	--	96	37	21	.1	4.3	203
03071840 - SHANNON RUN NEAR MOUNT MORRIS, PA						# 308 (LAT 39 43 55 LONG 080 05 48)			
AUG , 1981									
19...	2.5	210	--	170	66	14	.3	6.7	302
03071860 - DUNKARD CREEK AT MOUNT MORRIS, PA						# 309 (LAT 39 44 10 LONG 080 03 58)			
AUG , 1981									
19...	4.0	120	--	96	210	37	.2	2.7	536
03071920 - MEADOW RUN AT DAVISTOWN, PA						# 318 (LAT 39 45 59 LONG 080 01 15)			
MAR , 1981									
24...	--	--	--	83	56	--	--	--	193
AUG									
11...	--	--	--	250	130	--	--	--	572
19...	2.9	300	2	240	140	83	.6	5.6	623
03071925 - UNNAMED TRIBUTARY NEAR MOUNT MORRIS, PA						# 310 (LAT 39 43 55 LONG 060 00 43)			
AUG , 1981									
19...	3.9	310	--	250	830	.6	.1	13	1590
03071930 - UNNAMED TRIBUTARY AT TAYLORTOWN, PA						# 221 (LAT 39 44 22 LONG 079 59 07)			
AUG , 1981									
20...	3.4	270	4	230	520	9.5	.5	6.7	1050
03071940 - UNNAMED TRIBUTARY AT TAYLORTOWN, PA						# 214 (LAT 39 44 45 LONG 079 58 05)			
AUG , 1981									
20...	4.7	34	--	28	1600	3.0	.7	19	2570
03071945 - UNNAMED TRIBUTARY AT TAYLORTOWN, PA						# 213 (LAT 39 44 53 LONG 079 58 20)			
AUG , 1981									
20...	3.8	--	--	--	1000	5.2	.7	84	1700

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MONONGAHELA RIVER BASIN--Continued										
03071950 - UNNAMED TRIBUTARY NEAR BOBTOWN, PA # 212 (LAT 39 45 00 LONG 079 57 56)										
AUG , 1981										
19...	1700	.28	3100	2.1	24.5	1200	760	330	100	33
03072000 - DUNKARD CREEK AT SHANNOPIN, PA. (LAT 39 45 38 LONG 079 58 24)										
AUG , 1981										
19...	1640	30	1250	7.0	23.5	370	8.0	110	24	87
03072660 - WHITELEY CREEK NEAR OAK FOREST, PA # 312 (LAT 39 48 03 LONG 080 10 51)										
JUN , 1981										
02...	1100	.23	207	7.7	17.0	--	4.0	--	--	--
09...	1125	5.4	165	7.0	17.5	--	4.0	--	--	--
03072665 - PATTERSON RUN NEAR KIRBY, PA # 312A (LAT 39 47 52 LONG 080 09 14)										
JUN , 1981										
02...	1120	.68	200	7.7	17.0	--	4.0	--	--	--
09...	1240	18	155	7.3	21.0	--	5.0	--	--	--
03072703 - DYERS FORK NEAR KIRBY, PA # 321 (LAT 39 48 31 LONG 080 05 47)										
AUG , 1981										
20...	0830	.00	670	7.6	14.5	220	.0	63	16	36
03072705 - DUTCH RUN NEAR KIRBY, PA # 320 (LAT 39 48 20 LONG 080 05 08)										
AUG , 1981										
20...	0845	.00	1100	7.9	11.5	370	.0	110	24	53
03072710 - FROSTY RUN NEAR GARARDS FORT, PA # 313 (LAT 39 48 47 LONG 080 03 58)										
AUG , 1981										
20...	0915	.00	415	8.2	14.0	150	.0	44	10	22
03072715 - MINOR RUN NEAR GARARDS FORT, PA # 315 (LAT 39 48 58 LONG 080 01 39)										
AUG , 1981										
20...	1015	.05	505	8.2	14.0	180	.0	52	13	39
03072720 - WHITELEY CREEK AT GARARDS FORT, PA # 316 (LAT 39 48 44 LONG 080 00 48)										
AUG , 1981										
20...	1100	.41	670	7.9	17.0	190	4.0	54	13	67

ANALYSIS OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued									
03071950 - UNNAMED TRIBUTARY NEAR BOBTOWN, PA # 212 (LAT 39 45 00 LONG 079 57 56)									
AUG , 1981									
19...	1.4	--	--	--	1700	5.8	3.4	65	2860
03072000 - DUNKARD CREEK AT SHANNOPIN, PA. (LAT 39 45 38 LONG 079 58 24)									
AUG , 1981									
19...	3.6	54	--	44	430	31	.4	6.6	812
03072660 - WHITELEY CREEK NEAR OAK FOREST, PA # 312 (LAT 39 48 03 LONG 080 10 51)									
JUN , 1981									
02...	--	68	--	56	34	6.2	--	--	130
09...	--	49	--	40	26	3.7	--	--	94
03072665 - PATTERSON RUN NEAR KIRBY, PA # 312A (LAT 39 47 52 LONG 080 09 14)									
JUN , 1981									
02...	--	71	--	58	35	2.6	--	--	128
09...	--	41	0	34	27	1.6	--	--	93
03072703 - DYERS FORK NEAR KIRBY, PA # 321 (LAT 39 48 31 LONG 080 05 47)									
AUG , 1981									
20...	4.3	140	--	120	110	53	.2	.9	425
03072705 - DUTCH RUN NEAR KIRBY, PA # 320 (LAT 39 48 20 LONG 080 05 08)									
AUG , 1981									
20...	3.5	280	--	230	120	130	.1	3.3	753
03072710 - FROSTY RUN NEAR GARARDS FORT, PA # 313 (LAT 39 48 47 LONG 080 03 58)									
AUG , 1981									
20...	2.9	200	--	170	36	8.2	.2	1.9	265
03072715 - MINOR RUN NEAR GARARDS FORT, PA # 315 (LAT 39 48 58 LONG 080 01 39)									
AUG , 1981									
20...	2.0	290	--	240	.0	7.2	.2	7.3	311
03072720 - WHITELEY CREEK AT GARARDS FORT, PA # 316 (LAT 39 48 44 LONG 080 00 48)									
AUG , 1981									
20...	3.4	180	--	140	130	30	.2	3.0	397

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MONONGAHELA RIVER BASIN--Continued									
03071950 - UNNAMED TRIBUTARY NEAR BOBTOWN, PA # 212 (LAT 39 45 00 LONG 079 57 56)									
AUG , 1981									
19...	.04	27000	20000	54000	54000	5600	5600	670	690
03072000 - DUNKARD CREEK AT SHANNOPIN, PA. (LAT 39 45 38 LONG 079 58 24)									
AUG , 1981									
19...	15	560	60	710	30	620	630	40	60
03072660 - WHITELEY CREEK NEAR OAK FOREST, PA # 312 (LAT 39 48 03 LONG 080 10 51)									
JUN , 1981									
02...	--	--	--	480	30	60	60	--	--
09...	--	--	--	5000	120	270	50	--	--
03072665 - PATTERSON RUN NEAR KIRBY, PA # 312A (LAT 39 47 52 LONG 080 09 14)									
JUN , 1981									
02...	--	--	--	330	30	90	80	--	--
09...	--	--	--	3300	160	60	50	--	--
03072703 - DYERS FORK NEAR KIRBY, PA # 321 (LAT 39 48 31 LONG 080 05 47)									
AUG , 1981									
20...	.07	170	<10	790	20	180	180	10	<4
03072705 - DUTCH RUN NEAR KIRBY, PA # 320 (LAT 39 48 20 LONG 080 05 08)									
AUG , 1981									
20...	.04	30	10	720	10	330	320	<10	<4
03072710 - FROSTY RUN NEAR GARARDS FORT, PA # 313 (LAT 39 48 47 LONG 080 03 58)									
AUG , 1981									
20...	.03	80	<10	170	20	260	4	<10	<4
03072715 - MINOR RUN NEAR GARARDS FORT, PA # 315 (LAT 39 48 58 LONG 080 01 39)									
AUG , 1981									
20...	.09	10	10	110	30	20	20	<10	<4
03072720 - WHITELEY CREEK AT GARARDS FORT, PA # 316 (LAT 39 48 44 LONG 080 00 48)									
AUG , 1981									
20...	.09	60	20	190	40	80	70	10	<4

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MONONGAHELA RIVER BASIN--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
03072725 - UNNAMED TRIBUTARY AT GARARDS FORT, PA # 317 (LAT 39 48 52 LONG 080 00 30)										
AUG , 1981										
20...	1215	.11	705	8.1	16.0	290	4.0	83	20	49
03072740 - UNNAMED TRIBUTARY NEAR MAPLETOWN, PA # 210 (LAT 39 48 02 LONG 079 58 39)										
AUG , 1981										
19...	1600	.00	750	8.5	17.0	280	--	77	22	46
03072750 - WHITELEY CREEK NEAR MAPLETOWN, PA # 219 (LAT 39 49 16 LONG 079 57 08)										
AUG , 1981										
19...	1500	3.9	5000	7.8	23.0	1800	2.0	550	99	440
03072755 - LITTLE WHITELEY CREEK AT PAISLEY, PA # 209 (LAT 39 51 34 LONG 079 56 47)										
AUG , 1981										
19...	1400	.57	900	8.7	20.0	390	--	100	33	45
03072765 - PEGS RUN AT NEMACOLIN, PA # 204 (LAT 39 53 20 LONG 079 55 23)										
AUG , 1981										
19...	1145	.04	3500	3.8	19.5	1200	260	310	110	250
03072770 - MUDDY CREEK NEAR KHEDIVE, PA # 119 (LAT 39 53 06 LONG 080 04 02)										
AUG , 1981										
20...	0945	.00	320	7.5	14.5	120	8.0	36	8.3	15
03072773 - SOUTH BRANCH NEAR GARARDS FORT, PA # 314 (LAT 39 51 13 LONG 080 01 37)										
AUG , 1981										
20...	1400	.10	840	8.1	21.5	160	4.0	44	13	120
03072776 - UNNAMED TRIBUTARY NEAR CARMICHAELS, PA # 206 (LAT 39 52 48 LONG 079 59 50)										
AUG , 1981										
19...	1300	.01	700	7.3	20.0	220	5.0	72	10	38
03072777 - MUDDY CREEK NEAR CARMICHAELS, PA # 207 (LAT 39 52 50 LONG 079 59 51)										
AUG , 1981										
19...	1300	.99	6500	8.3	20.5	370	--	100	30	1100

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued									
03072725 - UNNAMED TRIBUTARY AT GARARDS FORT, PA # 317 (LAT 39 48 52 LONG 080 00 30)									
AUG , 1981									
20...	2.7	300	--	250	140	5.0	.1	8.8	463
03072740 - UNNAMED TRIBUTARY NEAR MAPLETOWN, PA # 210 (LAT 39 48 02 LONG 079 58 39)									
AUG , 1981									
19...	6.1	230	2	190	170	5.7	.1	10	623
03072750 - WHITELEY CREEK NEAR MAPLETOWN, PA # 219 (LAT 39 49 16 LONG 079 57 08)									
AUG , 1981									
19...	10	--	--	48	3000	16	1.1	2.2	4620
03072755 - LITTLE WHITELEY CREEK AT PAISLEY, PA # 209 (LAT 39 51 34 LONG 079 56 47)									
AUG , 1981									
19...	3.7	190	190	160	250	14	.2	8.1	643
03072765 - PEGS RUN AT NEMACOLIN, PA # 204 (LAT 39 53 20 LONG 079 55 23)									
AUG , 1981									
19...	14	--	--	--	1900	40	.5	40	3070
03072770 - MUDDY CREEK NEAR KHEDIVE, PA # 119 (LAT 39 53 06 LONG 080 04 02)									
AUG , 1981									
20...	2.1	140	--	110	35	12	.1	5.5	186
03072773 - SOUTH BRANCH NEAR GARARDS FORT, PA # 314 (LAT 39 51 13 LONG 080 01 37)									
AUG , 1981									
20...	3.5	210	--	170	200	31	.3	3.7	552
03072776 - UNNAMED TRIBUTARY NEAR CARMICHAELS, PA # 206 (LAT 39 52 48 LONG 079 59 50)									
AUG , 1981									
19...	4.1	120	--	98	190	17	.2	3.9	442
03072777 - MUDDY CREEK NEAR CARMICHAELS, PA # 207 (LAT 39 52 50 LONG 079 59 51)									
AUG , 1981									
19...	14	260	--	210	2800	7.0	.5	6.7	5330

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MONONGAHELA RIVER BASIN--Continued									
03072725 - UNNAMED TRIBUTARY AT GARARDS FORT, PA # 317 (LAT 39 48 52 LONG 080 00 30)									
AUG , 1981									
20...	.08	80	10	270	<10	220	90	10	<4
03072740 - UNNAMED TRIBUTARY NEAR MAPLETOWN, PA # 210 (LAT 39 48 02 LONG 079 58 39)									
AUG , 1981									
19...	--	50	10	100	10	10	6	<10	<4
03072750 - WHITELEY CREEK NEAR MAPLETOWN, PA # 219 (LAT 39 49 16 LONG 079 57 08)									
AUG , 1981									
19...	.38	100	20	640	80	460	410	10	10
03072755 - LITTLE WHITELEY CREEK AT PAISLEY, PA # 209 (LAT 39 51 34 LONG 079 56 47)									
AUG , 1981									
19...	.71	180	<100	150	<10	160	160	10	<4
03072765 - PEGS RUN AT NEMACOLIN, PA # 204 (LAT 39 53 20 LONG 079 55 23)									
AUG , 1981									
19...	.09	10000	10000	9200	9500	6600	7000	220	260
03072770 - MUDDY CREEK NEAR KHEDIVE, PA # 119 (LAT 39 53 06 LONG 080 04 02)									
AUG , 1981									
20...	.07	50	<10	700	20	1200	1200	<10	5
03072773 - SOUTH BRANCH NEAR GARARDS FORT, PA # 314 (LAT 39 51 13 LONG 080 01 37)									
AUG , 1981									
20...	.13	1000	60	1300	200	320	240	20	<4
03072776 - UNNAMED TRIBUTARY NEAR CARMICHAELS, PA # 206 (LAT 39 52 48 LONG 079 59 50)									
AUG , 1981									
19...	3.2	100	10	800	130	760	710	10	8
03072777 - MUDDY CREEK NEAR CARMICHAELS, PA # 207 (LAT 39 52 50 LONG 079 59 51)									
AUG , 1981									
19...	.58	300	40	1000	90	1700	1600	10	10

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MONONGAHELA RIVER BASIN--Continued										
03072803 - UNNAMED TRIBUTARY #1 NEAR CARMICHAELS, PA # 202 (LAT 39 55 02 LONG 079 56 56)										
AUG , 1981 19...	1015	.00	6000	2.5	20.5	2300	1300	340	360	12
03072805 - UNNAMED TRIBUTARY #2 NEAR CARMICHAELS, PA # 203 (LAT 39 55 11 LONG 079 56 47)										
AUG , 1981 19...	0940	.00	2200	7.3	17.0	1400	36	310	140	12
03072807 - MUDDY CREEK NEAR CARMICHAELS, PA # 208 (LAT 39 55 44 LONG 079 56 12)										
AUG , 1981 19...	0840	--	3000	8.2	16.0	580	4.0	150	50	430
03072810 - NEEL RUN AT RICES LANDING, PA # 201 (LAT 39 57 01 LONG 079 58 50)										
AUG , 1981 19...	0720	.15	560	7.7	14.0	200	2.0	55	16	47
03072840 - TENMILE CK NEAR CLARKSVILLE, PA # 101 (LAT 39 59 51 LONG 080 02 31)										
AUG , 1981 19...	0800	24	1300	8.2	17.5	290	.0	84	19	260
03072847 - GRAYS FORK NEAR GRAYSVILLE, PA # 402 (LAT 39 53 43 LONG 080 20 29)										
AUG , 1981 19...	1330	.38	290	8.2	20.5	130	1.0	42	5.5	14
03072850 - SOUTH FORK TENMILE CR NR RODGERSVILLE, PA # 401 (LAT 39 53 00 LONG 080 18 59)										
AUG , 1981 19...	1415	.61	295	8.3	21.0	130	--	42	6.4	17
03072855 - HARGUS CREEK AT ROGERSVILLE, PA # 513 (LAT 39 52 00 LONG 080 17 20)										
AUG , 1981 19...	1600	.02	245	7.5	19.0	120	6.0	38	6.2	9.0
03072860 - MCCOURTNEY RUN AT ROGERSVILLE, PA # 512 (LAT 39 52 03 LONG 080 17 17)										
AUG , 1981 19...	1530	.07	315	8.1	20.0	140	1.0	42	7.3	19

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE FET-FLD (MG/L AS HCO3)	CAR- BONATE FET-FLD (MG/L AS CO3)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued									
03072803 - UNNAMED TRIBUTARY #1 NEAR CARMICHAELS, PA # 202 (LAT 39 55 02 LONG 079 56 56)									
AUG , 1981									
19...	6.2	--	--	--	3600	.3	<.1	76	5650
03072805 - UNNAMED TRIBUTARY #2 NEAR CARMICHAELS, PA # 203 (LAT 39 55 11 LONG 079 56 47)									
AUG , 1981									
19...	5.5	240	--	200	1200	2.9	.1	12	2150
03072807 - MUDDY CREEK NEAR CARMICHAELS, PA # 208 (LAT 39 55 44 LONG 079 56 12)									
AUG , 1981									
19...	9.3	180	--	150	1300	160	.3	4.2	2340
03072810 - NEEL RUN AT RICES LANDING, PA # 201 (LAT 39 57 01 LONG 079 58 50)									
AUG , 1981									
19...	3.3	250	--	200	93	8.1	.3	11	361
03072840 - TENMILE CK NEAR CLARKSVILLE, PA # 101 (LAT 39 59 51 LONG 080 02 31)									
AUG , 1981									
19...	3.7	200	--	160	460	78	.2	3.6	1020
03072847 - GRAYS FORK NEAR GRAYSVILLE, PA # 402 (LAT 39 53 43 LONG 080 20 29)									
AUG , 1981									
19...	2.4	140	--	110	26	12	.2	2.7	187
03072850 - SOUTH FORK TENMILE CR NR RODGERSVILLE, PA # 401 (LAT 39 53 00 LONG 080 18 59)									
AUG , 1981									
19...	2.5	140	--	110	29	11	.1	3.1	195
03072855 - HARGUS CREEK AT ROGERSVILLE, PA # 513 (LAT 39 52 00 LONG 080 17 20)									
AUG , 1981									
19...	2.8	120	--	100	27	4.6	.1	5.8	177
03072860 - MCCOURTNEY RUN AT ROGERSVILLE, PA # 512 (LAT 39 52 03 LONG 080 17 17)									
AUG , 1981									
19...	3.4	140	--	110	31	14	.1	3.4	215

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MONONGAHELA RIVER BASIN--Continued									
03072803 - UNNAMED TRIBUTARY #1 NEAR CARMICHAELS, PA # 202 (LAT 39 55 02 LONG 079 56 56)									
AUG , 1981 19...	1.8	230000	110000	70000	69000	97000	92000	8500	8400
03072805 - UNNAMED TRIBUTARY #2 NEAR CARMICHAELS, PA # 203 (LAT 39 55 11 LONG 079 56 47)									
AUG , 1981 19...	5.6	860	10	420	70	1200	1000	60	50
03072807 - MUDDY CREEK NEAR CARMICHAELS, PA # 208 (LAT 39 55 44 LONG 079 56 12)									
AUG , 1981 19...	1.2	90	10	180	40	80	80	10	10
03072810 - NEEL RUN AT RICES LANDING, PA # 201 (LAT 39 57 01 LONG 079 58 50)									
AUG , 1981 19...	.61	80	20	150	10	120	110	<10	10
03072840 - TENMILE CK NEAR CLARKSVILLE, PA # 101 (LAT 39 59 51 LONG 080 02 31)									
AUG , 1981 19...	.08	280	60	480	20	50	20	10	<4
03072847 - GRAYS FORK NEAR GRAYSVILLE, PA # 402 (LAT 39 53 43 LONG 080 20 29)									
AUG , 1981 19...	.02	160	40	440	40	70	60	10	<4
03072850 - SOUTH FORK TENMILE CR NR RODGERSVILLE, PA # 401 (LAT 39 53 00 LONG 080 18 59)									
AUG , 1981 19...	.05	170	30	670	20	80	50	10	<4
03072855 - HARGUS CREEK AT ROGERSVILLE, PA # 513 (LAT 39 52 00 LONG 080 17 20)									
AUG , 1981 19...	.11	70	20	730	50	480	450	10	20
03072860 - MCCOURTNEY RUN AT ROGERSVILLE, PA # 512 (LAT 39 52 03 LONG 080 17 17)									
AUG , 1981 19...	.12	290	60	1100	80	160	90	10	<4

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MONONGAHELA RIVER BASIN--Continued										
03072865 - PURSLEY CREEK NEAR WAYNESBURG, PA # 412 (LAT 39 52 40 LONG 080 13 46)										
AUG , 1981										
19...	1630	.03	295	7.8	22.5	130	4.0	40	7.1	12
03072879 - PATTERSON CREEK NEAR NINEVEH, PA # 403 (LAT 39 56 26 LONG 080 17 25)										
AUG , 1981										
19...	1130	.45	270	8.2	18.0	130	1.0	42	5.8	5.4
03072895 - BATES FORK AT SYCAMORE, PA # 409 (LAT 39 55 38 LONG 080 14 45)										
AUG , 1981										
19...	1030	1.1	285	8.0	16.5	140	2.0	45	6.3	11
03072905 - WISECARVER RUN NEAR WAYNESBURG, PA # 410 (LAT 39 54 14 LONG 080 12 37)										
AUG , 1981										
20...	0845	.02	210	7.7	15.5	100	40	32	5.5	6.1
03072910 - BROWNS CREEK AT WAYNESBURG, PA #411 (LAT 39 53 56 LONG 080 12 23)										
AUG , 1981										
20...	0915	3.1	275	8.0	18.0	130	2.0	43	5.6	8.1
03072915 - SMITH CREEK AT WAYNESBURG, PA # 415 (LAT 39 53 24 LONG 080 11 06)										
AUG , 1981										
20...	1030	.08	570	8.0	14.5	220	1.0	67	12	55
03072920 - PURMAN RUN AT WAYNESBURG, PA # 413 (LAT 39 53 54 LONG 080 10 57)										
AUG , 1981										
20...	1230	.03	850	8.0	17.0	300	2.0	88	19	56
03072925 - SUGAR RUN AT WAYNESBURG, PA # 416 (LAT 39 53 26 LONG 080 10 27)										
AUG , 1981										
20...	1115	.01	470	7.9	16.0	210	4.0	64	11	20
03072930 - LAUREL RUN AT MORRISVILLE, PA # 414 (LAT 39 53 38 LONG 080 09 34)										
AUG , 1981										
19...	1730	.04	580	8.4	24.5	230	--	66	16	29

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued									
03072865 - PURSLEY CREEK NEAR WAYNESBURG, PA # 412 (LAT 39 52 40 LONG 080 13 46)									
AUG , 1981									
19...	2.7	140	--	120	26	4.8	.1	4.2	174
03072879 - PATTERSON CREEK NEAR NINEVEH, PA # 403 (LAT 39 56 26 LONG 080 17 25)									
AUG , 1981									
19...	2.4	140	--	120	25	1.8	.1	2.7	175
03072895 - BATES FORK AT SYCAMORE, PA # 409 (LAT 39 55 38 LONG 080 14 45)									
AUG , 1981									
19...	2.2	140	--	120	29	5.8	.1	5.5	195
03072905 - WISECARVER RUN NEAR WAYNESBURG, PA # 410 (LAT 39 54 14 LONG 080 12 37)									
AUG , 1981									
20...	2.3	110	--	90	27	2.7	.1	4.4	141
03072910 - BROWNS CREEK AT WAYNESBURG, PA #411 (LAT 39 53 56 LONG 080 12 23)									
AUG , 1981									
20...	2.6	140	--	120	27	7.6	.2	3.6	179
03072915 - SMITH CREEK AT WAYNESBURG, PA # 415 (LAT 39 53 24 LONG 080 11 06)									
AUG , 1981									
20...	4.1	210	--	170	66	46	.2	4.4	401
03072920 - PURMAN RUN AT WAYNESBURG, PA # 413 (LAT 39 53 54 LONG 080 10 57)									
AUG , 1981									
20...	6.3	220	--	180	85	120	.3	8.5	607
03072925 - SUGAR RUN AT WAYNESBURG, PA # 416 (LAT 39 53 26 LONG 080 10 27)									
AUG , 1981									
20...	3.4	230	--	190	40	14	.2	6.3	302
03072930 - LAUREL RUN AT MORRISVILLE, PA # 414 (LAT 39 53 38 LONG 080 09 34)									
AUG , 1981									
19...	3.7	99	1	83	160	31	.2	10	420

BEST DOCUMENT AVAILABLE

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
MONONGAHELA RIVER BASIN--Continued									
03072865 - PURSLEY CREEK NEAR WAYNESBURG, PA # 412 (LAT 39 52 40 LONG 080 13 46)									
AUG , 1981									
19...	.02	170	10	1100	30	480	230	10	<4
03072879 - PATTERSON CREEK NEAR NINEVEH, PA # 403 (LAT 39 56 26 LONG 080 17 25)									
AUG , 1981									
19...	.04	90	20	200	20	30	20	<10	<4
03072895 - BATES FORK AT SYCAMORE, PA # 409 (LAT 39 55 38 LONG 080 14 45)									
AUG , 1981									
19...	.03	70	40	420	20	50	30	10	5
03072905 - WISECARVER RUN NEAR WAYNESBURG, PA # 410 (LAT 39 54 14 LONG 080 12 37)									
AUG , 1981									
20...	.16	80	30	150	40	120	80	20	<4
03072910 - BROWNS CREEK AT WAYNESBURG, PA #411 (LAT 39 53 56 LONG 080 12 23)									
AUG , 1981									
20...	.04	150	20	330	20	40	20	20	<4
03072915 - SMITH CREEK AT WAYNESBURG, PA # 415 (LAT 39 53 24 LONG 080 11 06)									
AUG , 1981									
20...	.21	200	20	830	20	100	60	<10	7
03072920 - PURMAN RUN AT WAYNESBURG, PA # 413 (LAT 39 53 54 LONG 080 10 57)									
AUG , 1981									
20...	.50	110	20	240	<10	150	140	30	10
03072925 - SUGAR RUN AT WAYNESBURG, PA # 416 (LAT 39 53 26 LONG 080 10 27)									
AUG , 1981									
20...	.04	210	20	350	20	270	150	10	<4
03072930 - LAUREL RUN AT MORRISVILLE, PA # 414 (LAT 39 53 38 LONG 080 09 34)									
AUG , 1981									
19...	.12	360	130	390	20	300	240	10	<4

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MONONGAHELA RIVER BASIN--Continued										
03072945 - RUFF CREEK NEAR RUFF CREEK, PA # 408 (LAT 39 57 47 LONG 080 11 37)										
AUG , 1981										
19...	0945	.42	270	8.0	15.5	130	2.0	42	6.1	8.7
03072965 - CRAYNES RUN NEAR RUFF CREEK, PA # 407 (LAT 39 57 07 LONG 080 08 46)										
AUG , 1981										
19...	0900	.94	505	8.2	14.5	160	2.0	50	9.6	61
03072970 - UNNAMED TRIBUTARY NEAR RUFF CREEK, PA # 406 (LAT 39 56 37 LONG 080 07 58)										
AUG , 1981										
19...	0830	.14	10400	8.1	20.0	710	4.0	150	81	2700
03072975 - RUFF CREEK NEAR MATHER, PA # 405 (LAT 39 56 35 LONG 080 07 33)										
AUG , 1981										
19...	0730	2.0	1180	8.2	15.5	180	2.0	54	11	200
03072985 - RUFF CREEK NEAR MATHER, PA # 120 (LAT 39 55 12 LONG 080 06 54)										
AUG , 1981										
20...	1030	2.7	1100	8.5	16.5	180	--	54	11	140
03072990 - MINE OUTFLOW #1 NEAR JEFFERSON, PA # 104 (LAT 39 54 30 LONG 080 05 10)										
AUG , 1981										
20...	1000	.00	650	7.5	12.0	210	8.0	54	19	52
03072995 - MINE OUTFLOW #2 NEAR JEFFERSON, PA # 105 (LAT 39 54 36 LONG 080 05 06)										
AUG , 1981										
20...	1015	.00	1200	7.0	12.0	330	40	73	36	190
03073000 - SOUTH FORK TENMILE CREEK AT JEFFERSON, PA. (LAT 39 55 23 LONG 080 04 22)										
AUG , 1981										
20...	1030	11	560	8.3	18.5	160	.0	49	9.6	51
03073003 - ABANDONED MINE DRAINAGE AT MATHER, PA # 106 (LAT 39 55 42 LONG 080 05 02)										
AUG , 1981										
19...	1800	.00	450	3.8	12.5	100	36	26	9.7	29

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued									
03072945 - RUFF CREEK NEAR RUFF CREEK, PA # 408 (LAT 39 57 47 LONG 080 11 37)									
AUG , 1981 19...	2.1	130	--	110	28	3.5	.1	4.9	179
03072965 - CRAYNES RUN NEAR RUFF CREEK, PA # 407 (LAT 39 57 07 LONG 080 08 46)									
AUG , 1981 19...	1.8	280	--	230	53	3.9	.2	6.6	349
03072970 - UNNAMED TRIBUTARY NEAR RUFF CREEK, PA # 406 (LAT 39 56 37 LONG 080 07 58)									
AUG , 1981 19...	12	340	--	280	2300	2800	.6	6.4	8470
03072975 - RUFF CREEK NEAR MATHER, PA # 405 (LAT 39 56 35 LONG 080 07 33)									
AUG , 1981 19...	3.1	220	--	180	150	190	.2	4.9	737
03072985 - RUFF CREEK NEAR MATHER, PA # 120 (LAT 39 55 12 LONG 080 06 54)									
AUG , 1981 20...	3.1	220	2	180	130	140	.2	4.1	593
03072990 - MINE OUTFLOW #1 NEAR JEFFERSON, PA # 104 (LAT 39 54 30 LONG 080 05 10)									
AUG , 1981 20...	4.5	180	--	150	140	8.2	.2	19	425
03072995 - MINE OUTFLOW #2 NEAR JEFFERSON, PA # 105 (LAT 39 54 36 LONG 080 05 06)									
AUG , 1981 20...	2.8	250	--	210	380	8.6	.5	14	860
03073000 - SOUTH FORK TENMILE CREEK AT JEFFERSON, PA. (LAT 39 55 23 LONG 080 04 22)									
AUG , 1981 20...	3.4	170	--	140	74	40	.2	3.1	351
03073003 - ABANDONED MINE DRAINAGE AT MATHER, PA # 106 (LAT 39 55 42 LONG 080 05 02)									
AUG , 1981 19...	2.7	--	--	--	91	43	<.1	19	274

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MONONGAHELA RIVER BASIN--Continued									
03072945 - RUFF CREEK NEAR RUFF CREEK, PA # 408 (LAT 39 57 47 LONG 080 11 37)									
AUG , 1981 19...	.04	230	<10	430	30	60	50	10	<4
03072965 - CRAYNES RUN NEAR RUFF CREEK, PA # 407 (LAT 39 57 07 LONG 080 08 46)									
AUG , 1981 19...	.08	460	30	390	10	110	100	10	<4
03072970 - UNNAMED TRIBUTARY NEAR RUFF CREEK, PA # 406 (LAT 39 56 37 LONG 080 07 58)									
AUG , 1981 19...	.05	240	20	470	100	470	430	10	10
03072975 - RUFF CREEK NEAR MATHER, PA # 405 (LAT 39 56 35 LONG 080 07 33)									
AUG , 1981 19...	.21	130	20	290	20	40	20	10	10
03072985 - RUFF CREEK NEAR MATHER, PA # 120 (LAT 39 55 12 LONG 080 06 54)									
AUG , 1981 20...	.10	120	10	150	30	20	20	<10	<4
03072990 - MINE OUTFLOW #1 NEAR JEFFERSON, PA # 104 (LAT 39 54 30 LONG 080 05 10)									
AUG , 1981 20...	.99	340	10	660	20	570	460	50	30
03072995 - MINE OUTFLOW #2 NEAR JEFFERSON, PA # 105 (LAT 39 54 36 LONG 080 05 06)									
AUG , 1981 20...	.31	600	30	500	10	510	440	140	100
03073000 - SOUTH FORK TENMILE CREEK AT JEFFERSON, PA. (LAT 39 55 23 LONG 080 04 22)									
AUG , 1981 20...	.31	640	30	430	<10	90	40	30	<4
03073003 - ABANDONED MINE DRAINAGE AT MATHER, PA # 106 (LAT 39 55 42 LONG 080 05 02)									
AUG , 1981 19...	.15	800	1100	2400	1100	370	380	40	30

ANALYSIS OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MONONGAHELA RIVER BASIN--Continued										
03073005 - UNNAMED TRIBUTARY AT MATHER, PA # 107 (LAT 39 56 20 LONG 080 04 36)										
AUG , 1981										
19...	1730	.13	1750	7.1	19.0	870	160	220	79	120
03073007 - UNNAMED TRIBUTARY AT MATHER, PA # 108 (LAT 39 56 31 LONG 080 03 51)										
AUG , 1981										
19...	1715	.01	1300	7.4	16.5	740	8.0	190	64	14
03073009 - UNNAMED TRIBUTARY NEAR JEFFERSON, PA # 110 (LAT 39 57 08 LONG 080 03 40)										
AUG , 1981										
19...	1645	.12	1250	8.1	21.0	610	.0	160	51	37
03073014 - CASTILE RUN NEAR CLARKSVILLE, PA # 118 (LAT 39 58 36 LONG 080 06 50)										
JUN , 1981										
02...	1100	.73	510	7.9	17.5	--	.0	--	--	--
09...	1215	3.0	315	7.9	20.0	--	.0	--	--	--
AUG										
19...	1030	.10	700	8.1	15.0	270	.0	81	16	45
03073016 - UNNAMED TRIBUTARY NEAR CLARKSVILLE, PA # 117 (LAT 39 58 37 LONG 080 06 30)										
AUG , 1981										
19...	1045	.15	11800	7.5	18.0	1500	8.0	340	150	2400
03073019 - CASTILE RUN NEAR CLARKSVILLE, PA # 116 (LAT 39 57 57 LONG 080 04 48)										
JUN , 1981										
02...	1130	2.1	960	8.3	16.0	--	--	--	--	--
09...	1145	13	440	7.9	19.0	--	.0	--	--	--
AUG										
19...	1115	.64	3900	8.2	14.5	590	.0	150	52	600
03073022 - UNNAMED TRIBUTARY NEAR CLARKSVILLE, PA # 115 (LAT 39 57 58 LONG 080 04 44)										
AUG , 1981										
19...	1130	.17	1350	7.8	16.0	660	.0	180	52	60
03073024 - UNNAMED TRIBUTARY AT CLARKSVILLE, PA # 114 (LAT 39 57 54 LONG 080 04 17)										
AUG , 1981										
19...	1200	.01	1030	8.3	16.5	490	--	130	41	41

ANALYSIS OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS
GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued									
03073005 - UNNAMED TRIBUTARY AT MATHER, PA # 107 (LAT 39 56 20 LONG 080 04 36)									
AUG , 1981									
19...	6.8	680	--	560	560	3.3	.2	10	1420
03073007 - UNNAMED TRIBUTARY AT MATHER, PA # 108 (LAT 39 56 31 LONG 080 03 51)									
AUG , 1981									
19...	4.9	95	--	78	640	6.3	<.1	15	1100
03073009 - UNNAMED TRIBUTARY NEAR JEFFERSON, PA # 110 (LAT 39 57 08 LONG 080 03 40)									
AUG , 1981									
19...	9.9	310	--	250	420	5.1	.2	8.3	1010
03073014 - CASTILE RUN NEAR CLARKSVILLE, PA # 118 (LAT 39 58 36 LONG 080 06 50)									
JUN , 1981									
02...	--	210	--	170	75	19	--	--	323
09...	--	130	--	100	49	8.7	--	--	211
AUG									
19...	3.1	260	--	220	100	34	.2	2.7	432
03073016 - UNNAMED TRIBUTARY NEAR CLARKSVILLE, PA # 117 (LAT 39 58 37 LONG 080 06 30)									
AUG , 1981									
19...	13	120	--	96	3900	1800	.6	12	9880
03073019 - CASTILE RUN NEAR CLARKSVILLE, PA # 116 (LAT 39 57 57 LONG 080 04 48)									
JUN , 1981									
02...	--	220	--	180	210	67	--	--	628
09...	--	140	--	110	94	24	--	--	308
AUG									
19...	5.9	190	--	160	1100	490	.3	6.1	2810
03073022 - UNNAMED TRIBUTARY NEAR CLARKSVILLE, PA # 115 (LAT 39 57 58 LONG 080 04 44)									
AUG , 1981									
19...	4.3	300	--	240	560	6.3	.2	10	1100
03073024 - UNNAMED TRIBUTARY AT CLARKSVILLE, PA # 114 (LAT 39 57 54 LONG 080 04 17)									
AUG , 1981									
19...	3.0	270	--	220	310	15	.3	8.7	732

ANALYSIS OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MONONGAHELA RIVER BASIN--Continued									
03073005 - UNNAMED TRIBUTARY AT MATHER, PA # 107 (LAT 39 56 20 LONG 080 04 36)									
AUG , 1981									
19...	.03	320	30	600	250	1400	1400	10	5
03073007 - UNNAMED TRIBUTARY AT MATHER, PA # 108 (LAT 39 56 31 LONG 080 03 51)									
AUG , 1981									
19...	.27	300	20	720	70	2200	2300	20	20
03073009 - UNNAMED TRIBUTARY NEAR JEFFERSON, PA # 110 (LAT 39 57 08 LONG 080 03 40)									
AUG , 1981									
19...	.35	700	10	1900	30	1200	1000	30	4
03073014 - CASTILE RUN NEAR CLARKSVILLE, PA # 118 (LAT 39 58 36 LONG 080 06 50)									
JUN , 1981									
02...	--	--	--	630	30	140	120	--	--
09...	--	--	--	2000	50	190	80	--	--
AUG									
19...	.21	20	<10	160	50	60	50	10	<4
03073016 - UNNAMED TRIBUTARY NEAR CLARKSVILLE, PA # 117 (LAT 39 58 37 LONG 080 06 30)									
AUG , 1981									
19...	2.0	300	10	1500	250	3400	3400	140	120
03073019 - CASTILE RUN NEAR CLARKSVILLE, PA # 116 (LAT 39 57 57 LONG 080 04 48)									
JUN , 1981									
02...	--	--	--	190	20	60	50	--	--
09...	--	--	--	7800	20	520	30	--	--
AUG									
19...	.16	20	10	90	60	30	30	<10	10
03073022 - UNNAMED TRIBUTARY NEAR CLARKSVILLE, PA # 115 (LAT 39 57 58 LONG 080 04 44)									
AUG , 1981									
19...	.12	120	10	310	10	590	560	10	7
03073024 - UNNAMED TRIBUTARY AT CLARKSVILLE, PA # 114 (LAT 39 57 54 LONG 080 04 17)									
AUG , 1981									
19...	.14	50	1	300	20	30	20	<10	<4

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MONONGAHELA RIVER BASIN--Continued										
03073026 - UNNAMED TRIBUTARY AT CLARKSVILLE, PA # 113 (LAT 39 57 51 LONG 080 03 59)										
AUG , 1981										
19...	1230	.14	860	8.2	14.5	340	.0	87	30	60
03073028 - UNNAMED TRIBUTARY AT CLARKSVILLE, PA # 112 (LAT 39 57 37 LONG 080 03 21)										
AUG , 1981										
19...	1245	.00	1000	8.0	14.5	530	.0	150	38	8.5
03073540 - TENMILE CREEK AT CLARKSVILLE, PA # 102 (LAT 39 58 21 LONG 080 02 02)										
AUG , 1981										
19...	0900	43	1100	8.2	17.5	250	.0	72	18	170
WHEELING CREEK BASIN										
03111570 - ENLOW FORK NEAR GRAYSVILLE, PA # 501 (LAT 39 58 40 LONG 080 23 48)										
JUN , 1981										
02...	1030	14	240	7.7	15.5	--	2.0	--	--	--
04...	1220	110	148	7.5	19.5	--	5.0	--	--	--
05...	0845	35	192	7.7	16.0	--	4.0	--	--	--
AUG										
19...	0910	1.0	290	7.5	15.0	120	4.0	41	5.1	5.7
03111580 - TEMPLETON FORK NEAR WEST FINLEY, PA # 502 (LAT 39 58 40 LONG 080 26 46)										
JUN , 1981										
02...	1230	31	255	7.8	16.0	--	1.0	--	--	--
04...	1400	--	167	7.5	18.0	--	6.0	--	--	--
05...	0945	103	208	7.8	15.0	--	4.0	--	--	--
AUG										
19...	1030	3.3	310	8.5	16.0	140	4.0	46	5.4	5.2
03111590 - ENLOW FORK NEAR WEST FINLEY, PA # 504 (LAT 39 57 18 LONG 080 30 34)										
AUG , 1981										
19...	1300	6.6	300	8.3	20.0	130	--	44	5.4	5.5
03111680 - JOB CREEK NEAR BRISTORIA, PA # 514 (LAT 39 51 32 LONG 080 23 09)										
AUG , 1981										
20...	1215	.05	270	7.8	18.5	120	4.0	37	5.7	13
03111685 - NO. FORK DUNKARD FORK AT BRISTORIA, PA # 515 (LAT 39 52 04 LONG 080 24 55)										
AUG , 1981										
19...	1910	.24	275	7.3	21.0	130	6.0	41	6.0	8.2

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
MONONGAHELA RIVER BASIN--Continued									
03073026 - UNNAMED TRIBUTARY AT CLARKSVILLE, PA # 113 (LAT 39 57 51 LONG 080 03 59)									
AUG , 1981									
19...	2.3	320	--	260	190	12	.4	9.3	564
03073028 - UNNAMED TRIBUTARY AT CLARKSVILLE, PA # 112 (LAT 39 57 37 LONG 080 03 21)									
AUG , 1981									
19...	2.5	160	--	130	390	1.8	.1	10	817
03073540 - TENMILE CREEK AT CLARKSVILLE, PA # 102 (LAT 39 58 21 LONG 080 02 02)									
AUG , 1981									
19...	3.8	180	--	150	330	66	.2	2.7	812
WHEELING CREEK BASIN--Continued									
03111570 - ENLOW FORK NEAR GRAYSVILLE, PA # 501 (LAT 39 58 40 LONG 080 23 48)									
JUN , 1981									
02...	--	78	--	64	30	--	--	--	130
04...	--	59	--	48	20	--	--	--	101
05...	--	73	--	60	30	--	--	--	127
AUG									
19...	2.1	150	--	120	28	3.1	.1	4.6	170
03111580 - TEMPLETON FORK NEAR WEST FINLEY, PA # 502 (LAT 39 58 40 LONG 080 26 46)									
JUN , 1981									
02...	--	110	--	92	32	--	--	--	153
04...	--	73	--	60	24	--	--	--	118
05...	--	83	--	68	29	--	--	--	237
AUG									
19...	2.0	160	--	130	27	2.7	.1	4.3	179
03111590 - ENLOW FORK NEAR WEST FINLEY, PA # 504 (LAT 39 57 18 LONG 080 30 34)									
AUG , 1981									
19...	2.0	150	--	120	31	3.2	.1	3.3	182
03111680 - JOB CREEK NEAR BRISTORIA, PA # 514 (LAT 39 51 32 LONG 080 23 09)									
AUG , 1981									
20...	2.1	300	--	250	22	4.4	.1	4.1	159
03111685 - NO. FORK DUNKARD FORK AT BRISTORIA, PA # 515 (LAT 39 52 04 LONG 080 24 55)									
AUG , 1981									
19...	2.3	300	--	250	24	5.6	.1	5.5	149

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MONONGAHELA RIVER BASIN--Continued									
03073026 - UNNAMED TRIBUTARY AT CLARKSVILLE, PA # 113 (LAT 39 57 51 LONG 080 03 59)									
AUG , 1981									
19...	.10	100	10	190	<10	20	8	10	<4
03073028 - UNNAMED TRIBUTARY AT CLARKSVILLE, PA # 112 (LAT 39 57 37 LONG 080 03 21)									
AUG , 1981									
19...	.25	700	<10	1100	30	70	10	20	30
03073540 - TENMILE CREEK AT CLARKSVILLE, PA # 102 (LAT 39 58 21 LONG 080 02 02)									
AUG , 1981									
19...	.05	370	70	230	20	30	5	10	<4
WHEELING CREEK BASIN--Continued									
03111570 - ENLOW FORK NEAR GRAYSVILLE, PA # 501 (LAT 39 58 40 LONG 080 23 48)									
JUN , 1981									
02...	--	--	--	610	20	40	20	--	--
04...	--	--	--	29000	450	1100	20	--	--
05...	--	--	--	2800	60	150	20	--	--
AUG									
19...	.08	150	40	200	20	30	20	10	<4
03111580 - TEMPLETON FORK NEAR WEST FINLEY, PA # 502 (LAT 39 58 40 LONG 080 26 46)									
JUN , 1981									
02...	--	--	--	640	20	30	10	--	--
04...	--	--	--	20000	280	820	30	--	--
05...	--	--	--	2500	50	160	10	--	--
AUG									
19...	.28	70	50	70	10	20	9	10	<4
03111590 - ENLOW FORK NEAR WEST FINLEY, PA # 504 (LAT 39 57 18 LONG 080 30 34)									
AUG , 1981									
19...	.09	140	30	150	10	20	5	10	4
03111680 - JOB CREEK NEAR BRISTORIA, PA # 514 (LAT 39 51 32 LONG 080 23 09)									
AUG , 1981									
20...	.12	110	10	420	20	60	20	10	6
03111685 - NO. FORK DUNKARD FORK AT BRISTORIA, PA # 515 (LAT 39 52 04 LONG 080 24 55)									
AUG , 1981									
19...	.07	100	20	550	30	90	90	20	7

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
WHEELING CREEK BASIN--Continued										
03111700 - NO. FORK DUNKARD FORK NEAR WIND RIDGE, PA # 516 (LAT 39 53 31 LONG 080 28 33)										
AUG , 1981										
18...	1820	.27	250	8.1	22.0	110	.0	36	5.5	6.2
03111705 - SOUTH FORK DUNKARD FORK AT ALEPPO, PA #511 (LAT 39 49 47 LONG 080 26 49)										
AUG , 1981										
20...	0825	.05	250	7.6	15.0	120	4.0	40	5.7	6.1
03111800 - SO. FORK DUNKARD FORK NEAR WIND RIDGE, PA # 517 (LAT 39 53 27 LONG 080 23 38)										
AUG , 1981										
19...	1740	.58	260	8.3	23.0	110	--	37	5.2	5.8
03111805 - MINE DRAINAGE #1 NEAR WIND RIDGE, PA # 507 (LAT 39 55 00 LONG 080 29 06)										
AUG , 1981										
19...	1630	.00	3750	3.8	19.0	870	2230	150	120	57
03111807 - MINE DRAINAGE #2 NEAR WIND RIDGE, PA # 508 (LAT 39 55 02 LONG 080 29 06)										
AUG , 1981										
19...	1630	.00	1000	3.9	17.5	120	250	29	11	3.8
03111820 - CRABAPPLE CREEK NEAR WIND RIDGE, PA # 518 (LAT 39 55 03 LONG 080 29 06)										
AUG , 1981										
19...	1520	.44	310	7.7	19.5	150	4.0	49	7.3	7.8
03111830 - DUNKARD FORK NEAR WIND RIDGE, PA # 505 (LAT 39 55 31 LONG 080 30 20)										
AUG , 1981										
19...	1420	2.3	300	8.2	22.0	120	.0	40	6.0	6.8
03114093 - PA. FORK FISH CREEK AT NEW FREEPORT, PA # 509 (LAT 39 45 34 LONG 080 25 48)										
AUG , 1981										
20...	1110	.20	275	7.8	18.5	110	4.0	34	5.6	17
03114098 - BISSETT RUN AT DEEP VALLEY, PA #510 (LAT 39 45 05 LONG 080 27 59)										
AUG , 1981										
20...	1035	.11	195	7.7	17.0	84	4.0	26	4.6	9.5
03114105 - PA. FORK FISH CREEK NEAR DEEP VALLEY, PA # 506 (LAT 39 44 49 LONG 080 29 50)										
AUG , 1981										
20...	0935	.69	210	7.7	16.5	98	4.0	31	5.1	7.8

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 130 DEG. C DIS-SOLVED (MG/L)
WHEELING CREEK BASIN--Continued									
03111700 - NO. FORK DUNKARD FORK NEAR WIND RIDGE, PA # 516 (LAT 39 53 31 LONG 080 28 33)									
AUG , 1981									
18...	1.9	250	--	200	27	5.7	.1	3.2	151
03111705 - SOUTH FORK DUNKARD FORK AT ALEPPO, PA #511 (LAT 39 49 47 LONG 080 26 49)									
AUG , 1981									
20...	2.4	300	--	250	21	4.3	.1	5.4	164
03111800 - SO. FORK DUNKARD FORK NEAR WIND RIDGE, PA # 517 (LAT 39 53 27 LONG 080 23 38)									
AUG , 1981									
19...	2.2	120	--	96	26	4.2	.1	4.5	144
03111805 - MINE DRAINAGE #1 NEAR WIND RIDGE, PA # 507 (LAT 39 55 00 LONG 080 29 06)									
AUG , 1981									
19...	2.4	--	--	--	2900	2.6	.9	48	4480
03111807 - MINE DRAINAGE #2 NEAR WIND RIDGE, PA # 508 (LAT 39 55 02 LONG 080 29 06)									
AUG , 1981									
19...	1.6	--	--	--	330	1.5	<.1	24	515
03111820 - CRABAPPLE CREEK NEAR WIND RIDGE, PA # 518 (LAT 39 55 03 LONG 080 29 06)									
AUG , 1981									
19...	2.1	120	--	110	37	6.8	.2	5.6	202
03111830 - DUNKARD FORK NEAR WIND RIDGE, PA # 505 (LAT 39 55 31 LONG 080 30 20)									
AUG , 1981									
19...	2.3	110	--	98	38	6.6	.1	2.8	179
03114093 - PA. FORK FISH CREEK AT NEW FREEPORT, PA # 509 (LAT 39 45 34 LONG 080 25 48)									
AUG , 1981									
20...	2.6	250	--	200	22	18	.1	2.6	151
03114098 - BISSETT RUN AT DEEP VALLEY, PA #510 (LAT 39 45 05 LONG 080 27 59)									
AUG , 1981									
20...	1.7	220	--	180	22	2.4	.1	4.8	125
03114105 - PA. FORK FISH CREEK NEAR DEEP VALLEY, PA # 506 (LAT 39 44 49 LONG 080 29 50)									
AUG , 1981									
20...	2.1	230	--	190	22	7.4	.1	2.9	126

GREENE COUNTY STUDY
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
WHEELING CREEK BASIN--Continued									
03111700 - NO. FORK DUNKARD FORK NEAR WIND RIDGE, PA # 516 (LAT 39 53 31 LONG 080 28 33)									
AUG , 1981									
18...	.27	100	40	260	30	40	30	10	6
03111705 - SOUTH FORK DUNKARD FORK AT ALEPPO, PA #511 (LAT 39 49 47 LONG 080 26 49)									
AUG , 1981									
20...	.05	150	30	350	20	30	30	20	7
03111800 - SO. FORK DUNKARD FORK NEAR WIND RIDGE, PA # 517 (LAT 39 53 27 LONG 080 23 38)									
AUG , 1981									
19...	.05	100	30	190	30	30	30	10	<4
03111805 - MINE DRAINAGE #1 NEAR WIND RIDGE, PA # 507 (LAT 39 55 00 LONG 080 29 06)									
AUG , 1981									
19...	.12	340000	220000	290000	290000	11000	11000	3100	3100
03111807 - MINE DRAINAGE #2 NEAR WIND RIDGE, PA # 508 (LAT 39 55 02 LONG 080 29 06)									
AUG , 1981									
19...	.68	21000	11000	27000	27000	840	820	220	230
03111820 - CRABAPPLE CREEK NEAR WIND RIDGE, PA # 518 (LAT 39 55 03 LONG 080 29 06)									
AUG , 1981									
19...	.21	720	70	360	20	<10	4	10	<4
03111830 - DUNKARD FORK NEAR WIND RIDGE, PA # 505 (LAT 39 55 31 LONG 080 30 20)									
AUG , 1981									
19...	.54	190	80	340	20	30	20	10	<4
03114093 - PA. FORK FISH CREEK AT NEW FREEPORT, PA # 509 (LAT 39 45 34 LONG 080 25 48)									
AUG , 1981									
20...	.14	100	10	300	40	50	50	10	9
03114098 - BISSETT RUN AT DEEP VALLEY, PA #510 (LAT 39 45 05 LONG 080 27 59)									
AUG , 1981									
20...	.06	80	20	170	10	10	10	10	<4
03114105 - PA. FORK FISH CREEK NEAR DEEP VALLEY, PA # 506 (LAT 39 44 49 LONG 080 29 50)									
AUG , 1981									
20...	.37	170	10	340	80	40	40	10	<4

ALLEGHENY COUNTY

403734080063001. Local number, AG 700.

LOCATION.--Lat 40°37'34", long 80°06'30", Hydrologic Unit 05030101, at State Game Land Number 203, Bradford Woods. Owner: U.S. Geological Survey.

AQUIFER.--Sandstone and shale of Glenshaw Formation of Late Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 100 ft (30.5 m), cased to 24 ft (6.10 m), open hole.

DATUM.--Altitude of land-surface datum is 1,035 ft (315 m). Measuring point: Top of casing, 3.45 ft (1.05 m) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--November 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.09 ft (1.551 m) below land-surface datum, April 4 and 15, 1980; lowest, 8.94 ft (2.725 m) below land-surface datum, Nov. 14, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.87	7.32	7.07	---	7.28	5.53	---	5.41	6.55	6.07	6.94	7.68
2	6.91	7.41	7.06	---	6.99	5.56	---	5.51	6.48	6.11	6.85	7.68
3	6.91	7.42	7.41	---	7.10	5.72	---	5.59	6.45	6.14	6.78	7.70
4	7.14	7.19	7.39	---	7.04	5.64	---	5.53	6.30	6.06	6.80	7.66
5	7.28	7.19	7.23	---	7.11	5.53	---	5.45	6.27	6.13	6.88	7.67
6	7.31	7.22	7.15	---	6.92	5.72	---	5.52	6.13	6.32	6.89	7.70
7	7.14	7.13	7.09	---	6.79	5.98	---	5.63	6.10	6.42	6.77	7.66
8	7.03	7.21	7.00	---	6.61	6.00	---	5.66	6.11	6.44	6.87	7.55
9	7.15	7.21	6.86	---	6.84	6.01	---	5.63	5.92	6.38	7.10	7.57
10	7.11	7.44	6.88	---	6.87	5.94	---	5.60	5.90	6.49	7.16	7.57
11	7.05	7.51	6.95	---	6.84	5.84	---	5.48	6.06	6.55	7.10	7.58
12	7.22	7.54	6.89	---	7.22	5.84	---	5.72	6.04	6.56	7.14	7.59
13	7.32	7.50	6.88	---	7.16	5.75	5.77	5.73	5.98	6.48	7.18	7.58
14	7.34	7.37	6.87	---	6.97	5.93	5.77	5.73	5.87	6.56	7.23	7.54
15	7.26	7.44	6.73	---	6.61	5.89	---	5.68	5.86	6.60	7.08	7.59
16	7.29	7.54	6.81	---	6.61	5.81	5.77	---	5.87	6.62	7.16	7.60
17	7.26	7.54	6.71	---	6.48	5.81	5.43	---	5.86	---	7.28	7.71
18	7.13	7.41	7.18	---	6.36	5.80	5.58	---	5.95	6.72	7.31	7.71
19	7.15	7.53	7.20	---	6.12	5.79	5.56	---	5.93	6.71	7.32	7.59
20	7.22	7.51	7.25	---	5.75	5.90	5.53	6.05	5.91	6.56	7.50	7.53
21	7.30	7.47	7.22	---	5.80	6.27	5.61	6.13	5.88	6.62	7.64	7.60
22	7.56	7.58	7.18	---	5.80	6.30	5.49	6.13	6.02	6.78	7.66	7.72
23	7.68	7.58	6.88	---	5.48	6.21	5.34	6.19	6.18	6.81	7.63	7.80
24	7.61	7.41	6.73	---	5.58	6.24	5.22	6.20	6.19	6.77	7.64	7.82
25	7.31	7.51	7.05	7.34	5.73	6.31	5.54	6.21	6.05	6.79	7.74	7.81
26	7.31	7.56	---	7.26	5.84	6.31	5.62	6.29	6.12	6.80	7.69	7.70
27	7.41	7.42	---	7.27	5.84	6.38	5.59	6.29	6.15	6.80	7.66	7.60
28	7.26	7.02	---	7.28	5.58	6.39	5.59	6.20	6.13	6.80	7.76	7.78
29	7.41	7.01	---	7.55	---	6.10	5.42	6.30	6.08	6.84	7.76	7.78
30	7.46	7.15	---	7.58	---	5.79	5.43	6.31	6.00	6.90	7.73	7.77
31	7.32	---	---	7.58	---	---	---	6.49	---	6.97	7.70	---
MEAN	7.25	7.38	7.03	7.41	6.48	5.94	5.54	5.88	6.08	6.56	7.29	7.66
MAX	7.68	7.58	7.41	7.58	7.28	6.39	5.77	6.49	6.55	6.97	7.76	7.82
MIN	6.87	7.01	6.71	7.26	5.48	5.53	5.22	5.41	5.86	6.06	6.77	7.53

WTR YR 1981 MEAN 6.71 HIGH 5.22 APR 24 LOW 7.82 SEP 24

404626079344001. Local number, AR 77.

LOCATION.--Lat 40°46'26", long 79°34'40", Hydrologic Unit 05010006, at State Game Land Number 247.
Owner: U.S. Geological Survey.
AQUIFER.--Allegheny Group of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 242 ft (73.8 m) cased to 43 ft (13 m), open hole.
DATUM.--Altitude of land-surface datum is 1,050 ft (320 m). Measuring point: Top of plywood cover, 1.05 ft (0.32 m) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--February 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.85 ft (8.184 m) below land-surface datum, May 27, 1978; lowest, 52.20 ft (15.910 m) below land-surface datum, May 1, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.53	31.80	31.40	31.03	31.63	29.87	29.70	27.77	29.71	29.35	31.49	30.51
2	31.81	31.04	31.52	31.15	31.50	29.74	29.70	27.81	29.74	29.26	31.02	30.64
3	31.91	31.40	31.88	31.16	31.40	29.59	29.75	27.82	29.75	29.12	30.77	30.57
4	31.87	31.47	31.92	31.19	31.33	29.62	29.66	28.05	29.84	28.90	30.64	30.55
5	31.82	31.17	31.92	31.33	30.97	29.12	29.62	28.15	29.88	28.68	30.53	30.49
6	31.96	31.24	31.71	31.37	30.82	30.30	29.91	28.26	29.88	28.43	30.58	30.66
7	31.96	31.29	31.60	31.38	30.76	30.48	29.91	28.42	29.85	29.13	30.60	30.69
8	31.88	31.29	31.49	31.41	31.08	30.02	29.72	28.42	29.87	29.41	31.42	30.67
9	31.71	31.34	31.35	31.45	31.26	30.07	29.85	28.48	29.83	29.35	31.64	30.62
10	32.00	32.91	31.17	31.48	31.35	30.08	29.94	28.51	29.81	29.21	31.76	30.95
11	32.85	33.41	31.11	31.43	31.27	29.94	29.87	28.50	29.96	29.23	31.79	31.04
12	32.97	33.12	31.09	31.39	31.38	29.91	29.68	28.45	30.04	29.27	31.58	31.03
13	32.96	32.98	31.02	31.42	31.45	29.91	29.88	28.85	30.04	29.26	31.66	30.92
14	32.95	32.52	31.06	31.28	31.45	29.94	29.86	28.87	30.03	29.31	31.60	30.71
15	32.90	32.24	31.02	31.28	31.17	29.96	29.76	28.83	30.00	29.31	31.02	30.82
16	32.72	32.06	30.85	31.46	30.88	29.89	29.49	28.98	29.81	29.30	30.83	30.82
17	32.56	32.15	30.65	31.56	30.35	29.89	29.22	29.19	29.80	29.47	31.17	30.84
18	32.53	32.13	29.86	31.58	30.34	29.95	29.06	29.33	29.76	29.52	31.39	30.84
19	32.50	32.12	29.79	31.29	30.33	29.95	28.95	29.32	29.76	29.64	31.45	31.08
20	32.30	32.37	30.14	31.20	30.03	29.93	28.63	29.20	29.95	29.66	31.12	31.07
21	32.49	32.55	30.29	31.19	29.56	30.21	28.59	29.17	29.93	29.60	31.19	31.28
22	32.72	32.76	30.42	31.40	29.54	30.35	27.75	29.18	29.87	29.48	31.16	31.30
23	32.84	32.50	30.42	31.51	29.56	30.34	27.76	29.16	29.37	29.50	31.18	30.88
24	32.84	32.45	30.16	31.57	29.43	30.17	28.06	29.17	29.48	29.51	31.16	30.91
25	32.55	32.39	30.41	31.64	29.43	30.05	28.28	29.25	29.56	29.56	30.95	30.98
26	32.28	32.42	30.56	31.64	29.30	30.18	28.38	29.40	29.59	29.44	31.31	30.89
27	32.33	32.23	30.69	31.72	29.54	30.19	28.46	29.50	29.57	29.47	31.44	30.74
28	32.26	31.88	30.81	31.77	29.80	30.12	28.46	29.51	29.55	29.46	31.44	30.65
29	32.15	31.53	30.91	31.72	---	30.09	28.40	29.58	29.54	29.08	31.07	30.88
30	32.05	31.52	30.98	31.75	---	29.92	27.94	29.60	29.45	30.87	30.96	30.87
31	32.01	---	31.00	31.74	---	29.68	---	29.62	---	31.52	30.02	---
MEAN	32.33	32.08	30.94	31.44	30.60	29.98	29.14	28.85	29.77	29.43	31.16	30.83
MAX	32.97	33.41	31.92	31.77	31.63	30.48	29.94	29.62	30.04	31.52	31.79	31.30
MIN	31.53	31.04	29.79	31.03	29.30	29.12	27.75	27.77	29.37	28.43	30.02	30.49

WTR YR 1981 MEAN 30.55 HIGH 27.75 APR 22 LOW 33.41 NOV 11

403006080252301. Local number, BV 156.

LOCATION.--Lat 40°30'06", long 80°25'23", Hydrologic Unit 05030101, at Raccoon State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Glenshaw Formation of Late Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 101 ft (30.8 m), cased to 25 ft (7.62 m), open hole.
DATUM.--Altitude of land-surface datum is 930 ft (283 m). Measuring point: Top of casing, 2.45 ft (75 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--November 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.75 ft (2.362 m) below land-surface datum, August 18, 1980; lowest 13.72 ft (4.182 m) below land-surface datum, June 5, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.26	9.23	---	8.88	9.00	8.04	8.49	8.06	8.78	8.58	8.94	9.33
2	9.24	9.28	---	9.05	8.63	8.10	8.59	8.18	8.73	8.63	8.88	9.21
3	9.27	9.29	9.02	9.03	8.68	8.22	8.56	8.24	8.71	8.66	8.85	9.21
4	9.39	9.13	9.00	---	8.65	8.20	8.50	8.24	8.66	8.62	8.90	9.11
5	9.50	9.17	8.92	---	8.70	8.07	8.46	8.23	8.69	8.50	8.97	9.15
6	9.52	9.20	8.92	---	8.59	8.23	8.57	8.27	8.60	8.59	8.94	9.19
7	9.44	9.10	8.88	---	8.59	8.36	8.57	8.32	8.68	8.69	8.87	9.18
8	9.40	9.14	8.82	---	8.54	8.44	8.49	8.37	8.68	8.76	8.96	9.08
9	9.44	9.11	8.73	---	8.69	8.45	8.54	8.35	8.34	8.75	9.11	9.02
10	9.44	9.29	8.72	---	8.71	8.40	8.51	8.34	8.26	8.82	9.18	9.05
11	9.33	9.37	8.78	---	8.59	8.36	8.19	8.25	8.38	8.89	9.18	9.08
12	9.43	9.40	8.74	---	8.83	8.36	8.20	8.39	8.41	8.90	9.18	9.11
13	9.47	9.35	8.77	---	8.86	8.28	8.26	8.43	8.40	8.89	9.27	9.02
14	9.52	9.27	8.80	---	8.76	8.39	8.38	8.40	8.26	8.85	9.31	8.99
15	9.49	9.30	8.80	---	8.69	8.39	8.31	8.39	8.29	8.90	9.24	8.97
16	9.49	9.40	8.72	---	8.57	8.29	8.16	8.57	8.27	8.89	9.22	8.92
17	9.47	9.39	8.79	---	8.40	8.28	8.12	8.62	8.36	8.95	9.31	8.97
18	9.34	9.27	8.75	---	8.33	8.28	8.18	8.64	8.42	9.01	9.38	9.01
19	9.35	9.37	9.04	---	8.22	8.27	---	8.58	8.45	9.03	9.40	8.91
20	9.36	9.36	9.11	---	7.97	8.37	8.33	8.63	8.49	8.97	9.45	8.91
21	9.36	9.36	9.15	---	8.09	8.60	8.38	8.68	8.50	8.92	9.48	8.95
22	---	9.38	9.14	---	8.08	8.62	8.31	---	8.42	9.07	9.48	8.96
23	---	9.36	8.97	---	7.94	8.59	8.16	---	8.56	9.13	9.47	9.02
24	---	9.22	8.99	---	7.85	8.60	8.05	---	8.62	9.13	9.49	9.20
25	---	9.17	9.06	9.16	8.02	8.66	8.23	---	8.59	9.13	9.54	9.21
26	---	9.21	9.03	9.06	8.17	8.66	8.29	---	8.52	---	9.56	9.15
27	---	9.07	9.13	8.97	8.22	8.70	8.27	---	8.61	9.06	9.55	9.07
28	---	8.77	9.12	8.98	8.09	8.70	8.22	8.56	8.67	9.01	9.62	9.20
29	9.27	8.74	9.03	9.19	---	8.57	8.00	8.57	8.67	8.80	9.64	9.24
30	9.31	8.84	8.94	9.22	---	8.42	7.96	8.57	8.61	8.88	9.53	9.24
31	9.22	---	8.92	9.23	---	8.51	---	8.75	---	8.94	9.38	---
MEAN	9.39	9.22	8.92	9.08	8.45	8.40	8.32	8.43	8.52	8.87	9.27	9.09
MAX	9.52	9.40	9.15	9.23	9.00	8.70	8.59	8.75	8.78	9.13	9.64	9.33
MIN	9.22	8.74	8.72	8.88	7.85	8.04	7.96	8.06	8.26	8.50	8.85	8.91

WTR YR 1981 MEAN 8.81 HIGH 7.85 FEB 24 LOW 9.64 AUG 29

BEST DOCUMENT AVAILABLE

410501079524401. Local number, BT 311.

LOCATION.--Lat 41°05'01", long 79°52'44", Hydrologic Unit 05030105, at State Game Land Number 95.
Owner: U.S. Geological Survey.
AQUIFER.--Kittanning Formation of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 89 ft (27.1 m), cased to 12 ft (3.7 m), open hole.
DATUM.--Altitude of land-surface datum is 1,465 ft (477 m). Measuring point: Top of casing, 2.30 ft (70 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--November 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.83 ft (1.167 m) below land-surface datum, April 30, 1981; lowest, 29.21 ft (8.903 m) below land-surface datum, July 24, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR.	MAY	JUN	JUL	AUG	SEP
1	18.49	10.77	7.08	---	6.87	4.67	4.91	3.98	6.35	11.76	23.27	25.60
2	18.67	12.00	6.39	---	5.75	4.74	5.01	4.13	6.57	13.46	23.10	25.60
3	18.97	12.16	6.53	---	5.87	4.87	4.98	4.19	6.58	14.72	23.62	---
4	19.75	12.39	6.52	---	6.16	4.86	5.00	4.18	5.78	15.24	23.68	---
5	20.45	13.30	6.48	---	6.17	4.85	4.52	4.17	5.77	15.62	23.93	---
6	20.62	13.67	6.45	---	6.15	4.99	4.76	4.14	6.04	16.72	23.93	---
7	20.54	13.77	6.36	---	6.02	5.15	4.81	4.28	6.40	17.71	23.88	---
8	20.61	14.80	6.12	---	6.22	5.18	4.77	4.32	6.51	18.13	23.98	---
9	20.91	14.78	5.82	---	6.34	5.19	4.92	4.40	6.47	18.45	24.26	---
10	20.91	14.95	5.71	---	6.18	5.07	4.92	4.38	5.50	18.91	24.39	---
11	20.95	15.56	5.86	---	5.55	4.98	4.84	4.25	5.93	19.32	24.56	---
12	21.14	16.01	5.86	---	---	4.98	4.34	4.44	6.16	19.56	24.75	---
13	21.36	16.02	5.90	---	---	4.85	4.43	4.51	6.33	19.64	24.83	23.78
14	21.51	16.10	5.99	---	---	4.98	4.26	4.51	6.36	19.95	24.92	24.53
15	21.65	16.78	5.89	---	---	4.91	4.35	4.43	6.63	20.17	24.72	25.07
16	21.84	17.72	6.00	---	---	4.90	4.38	4.64	6.78	20.22	24.76	25.18
17	21.83	17.77	5.95	---	---	4.95	4.14	4.73	6.44	20.29	25.06	25.44
18	21.77	17.43	5.83	---	---	4.98	4.15	4.75	6.67	20.50	25.06	25.50
19	21.72	18.17	6.12	---	---	5.02	4.20	4.85	6.98	20.64	24.94	25.48
20	22.76	17.32	---	13.57	---	5.21	4.40	5.01	7.01	20.63	25.01	25.54
21	22.93	17.25	6.23	14.02	4.76	5.32	4.45	5.14	7.44	20.68	25.13	25.75
22	24.75	17.24	6.24	14.01	4.76	5.39	4.41	5.26	7.76	21.01	25.19	25.77
23	24.99	16.70	6.11	13.75	4.63	5.37	4.19	5.36	8.47	---	25.19	26.04
24	24.97	15.52	6.23	14.11	4.57	4.97	3.91	5.52	9.17	---	25.31	26.07
25	24.73	9.61	---	14.28	4.70	5.23	4.13	5.65	9.52	21.61	25.38	26.16
26	11.24	7.94	---	13.35	4.80	5.26	4.16	5.80	7.21	21.70	25.39	26.15
27	10.28	7.76	---	7.65	4.83	4.87	4.24	5.81	7.74	21.85	25.40	26.15
28	9.70	7.37	---	6.88	4.67	4.93	4.24	5.75	8.33	21.86	25.53	26.28
29	9.62	7.13	---	7.04	---	4.85	4.08	5.98	9.10	21.73	25.57	26.32
30	9.80	7.26	---	7.13	---	4.73	3.83	6.08	10.46	22.03	25.60	26.35
31	9.95	---	---	7.16	---	4.82	---	6.13	---	22.83	25.61	---
MEAN	19.34	13.84	6.16	11.08	5.53	5.00	4.46	4.86	7.08	19.20	24.71	25.64
MAX	24.99	18.17	7.08	14.28	6.87	5.39	5.01	6.13	10.46	22.83	25.61	26.35
MIN	9.62	7.13	5.71	6.88	4.57	4.67	3.83	3.98	5.50	11.76	23.10	23.78

WTR YR 1981 MEAN 12.25 HIGH 3.83 APR 30 LOW 26.35 SEP 30

CAMBRIA COUNTY

401935078550601. Local number, CA 1.

LOCATION.--Lat 40°19'35", long 78°55'06", Hydrologic Unit 05010007, at Locust and Park Place, Johnstown. Owner: Johnstown Tribune Publishing Company.
AQUIFER.--Homewood Sandstone of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled water-table well, diameter 12 in (30 cm) to 8 in (20 cm), depth 180 ft (54.9 m), cased to 45 ft (13.7 m), open hole.
DATUM.--Altitude of land-surface datum is 1,165 ft (355 m). Measuring point: Top of casing, 10 ft (3.05 m) below land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--March 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.10 ft (3.078 m) below land-surface datum, Sept. 3, 1975; lowest measured, 26.78 ft (8.163 m) below land-surface datum, July 23, 1953.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	17.70	DEC 1	17.10	FEB 2	17.10	APR 6	16.80	JUN 1	17.10	AUG 3	17.20
13	17.70	8	17.10	16	16.90	20	16.00	10	16.70	10	17.50
20	17.70	15	17.10	23	17.40	27	16.90	15	15.90	17	17.60
27	17.30	22	17.50					22	16.80	24	17.60
		29	17.40					29	17.30	31	17.50
				MAR 2	16.00	MAY 4	16.90	JUL 6	17.30	SEP 8	17.20
NOV 3	17.80	JAN 5	17.70	16	16.50	11	17.50	13	17.50	14	17.20
10	17.60	12	17.60	23	16.80	18	16.80	20	17.60	21	17.50
17	17.80	19	17.70	30	16.20	26	17.30	28	17.10	28	17.70
24	17.40	26	17.60								

WTR YR 1981 MEAN 17.21 HIGH 15.90 JUN 15 LOW 17.80 NOV 3 AND NOV 17

CRAWFORD COUNTY

413542080245001. Local number, CW 413.

LOCATION.--Lat 41°35'42", long 80°24'50", Hydrologic Unit 05030102, at State Game Land Number 214 near Hartstown. Owner: U.S. Geological Survey.
AQUIFER.--Sandstone of Cussewago Formation of Early Mississippian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 100 ft (30.5 m), cased to 19 ft (5.8 m), open hole.
DATUM.--Altitude of land-surface datum is 1,110 ft (338 m). Measuring point: Top of casing, 2.70 ft (82 cm) above land-surface datum.
REMARKS.--Pumping test conducted June 9, 1981 caused decline in water level.
PERIOD OF RECORD.--July 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.02 ft (6.102 m) below land-surface datum, Feb. 23, 1975; lowest, 51.28 ft (15.630 m) below land-surface datum, July 27, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.24	27.89	26.57	---	26.14	---	26.08	25.77	27.27	50.13	50.94	---
2	28.25	27.76	26.45	---	25.95	25.32	---	25.76	27.33	50.20	50.75	---
3	28.25	27.61	26.41	---	---	25.51	---	25.76	27.34	50.19	50.60	---
4	28.42	27.42	26.41	---	---	---	---	25.76	27.43	50.19	50.59	---
5	28.51	27.33	26.37	---	---	25.78	---	25.83	---	50.22	50.55	49.63
6	28.54	27.27	26.32	---	---	25.98	---	25.97	---	50.38	50.52	49.31
7	28.54	27.16	26.20	---	---	26.05	---	26.03	27.49	50.43	50.37	48.79
8	28.65	27.13	26.18	---	25.98	26.07	---	26.10	27.49	50.46	50.39	48.71
9	28.70	27.11	26.15	---	26.10	26.08	---	26.11	---	50.50	50.51	48.55
10	28.75	27.17	26.11	---	---	---	---	26.10	50.59	50.56	50.56	48.43
11	28.76	27.22	26.19	---	26.28	---	---	26.30	50.59	50.63	---	48.37
12	28.80	27.26	---	---	---	26.09	---	26.34	---	50.64	---	48.24
13	28.90	27.27	---	---	26.28	26.05	---	26.34	---	50.61	---	48.15
14	28.99	27.29	---	---	26.11	---	---	26.39	---	50.67	---	47.99
15	29.05	27.28	---	---	---	26.03	---	26.45	---	50.74	50.40	47.71
16	29.07	27.31	---	---	---	---	---	26.51	---	50.78	50.35	47.40
17	29.08	27.30	---	---	---	26.11	---	26.52	---	50.84	50.40	47.22
18	29.10	27.31	26.14	---	---	---	---	26.52	---	50.88	50.30	46.84
19	29.10	27.31	26.27	---	---	26.21	---	26.49	---	50.89	---	46.66
20	29.10	27.30	26.38	---	25.25	26.32	26.15	26.45	---	50.74	50.30	---
21	29.10	27.32	---	26.92	25.25	26.46	26.19	26.43	---	50.87	50.30	46.62
22	29.23	27.31	26.33	---	25.21	---	26.19	26.62	---	51.05	50.29	46.53
23	29.24	27.34	---	---	25.08	26.45	26.22	26.72	49.65	51.11	50.19	46.56
24	29.24	---	---	---	25.08	26.43	26.24	26.78	49.64	51.14	50.18	46.49
25	29.25	---	---	26.88	25.10	26.36	26.30	26.86	49.71	51.20	50.26	46.45
26	29.14	27.34	---	26.81	25.17	26.23	26.30	26.91	49.79	51.20	50.23	46.30
27	29.14	27.17	---	---	---	26.11	26.24	26.95	49.90	51.28	50.21	46.20
28	28.88	26.93	---	26.75	---	26.12	26.19	27.03	49.97	51.22	50.28	46.32
29	28.75	26.79	---	26.65	---	26.05	26.03	27.06	49.97	51.08	---	46.44
30	28.44	26.69	---	26.52	---	26.02	25.87	27.12	50.01	51.11	---	46.44
31	28.12	---	---	26.38	---	26.08	---	27.27	---	51.00	---	---
MEAN	28.82	27.27	26.30	26.70	25.64	26.08	26.17	26.43	41.51	50.74	50.41	47.45
MAX	29.25	27.89	26.57	26.92	26.28	26.46	26.30	27.27	50.59	51.28	50.94	49.63
MIN	28.12	26.69	26.11	26.38	25.08	25.32	25.87	25.76	27.27	50.13	50.18	46.20

WTR YR 1981 MEAN 34.82 HIGH 25.08 FEB 23 AND FEB 24 LOW 51.28 JUL 27

412458078324601. Local number, EK 108.

LOCATION.--Lat 41°24'58", long 78°32'46", Hydrologic Unit 05010005, at St. Marys. Owner: St. Marys Municipal Joint Water Authority.
AQUIFER.--Pottsville Group of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 12 in (30 cm), depth 340 ft (104 m), cased to 40 ft (12.2 m), open hole.
DATUM.--Altitude of land-surface datum is 1,740 ft (530 m). Measuring point: Top of casing, 2.3 ft (70 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.90 ft (88 cm) below land-surface datum, March 30, 1975; lowest, 6.62 ft (2.018 m) below land-surface datum, Oct. 7 and 8, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.48	5.58	5.25	---	4.69	---	---	4.21	---	4.24	4.43	
2	6.38	5.79	5.26	---	4.33	---	---	3.98	---	4.28	4.32	
3	6.32	5.80	5.41	---	4.52	---	---	3.81	---	4.25	4.32	
4	6.36	5.69	5.43	---	4.54	---	---	3.73	---	4.18	4.34	
5	6.38	5.53	5.26	---	4.63	---	---	3.79	---	4.05	4.39	
6	6.51	5.60	5.13	---	4.64	---	4.66	3.94	---	4.14	4.36	
7	6.62	5.55	5.07	---	4.49	---	4.73	3.93	---	4.26	4.31	
8	6.62	5.62	5.00	---	4.36	---	4.58	3.87	---	4.29	4.29	
9	6.50	5.66	4.84	---	4.55	---	4.57	3.93	---	4.22	4.43	
10	6.43	5.54	4.78	---	4.68	---	4.73	4.05	---	4.30	4.41	
11	6.56	5.65	4.91	---	4.51	---	4.56	4.14	---	4.37	4.32	
12	6.56	5.67	4.87	---	4.87	---	4.51	4.11	---	4.38	4.42	
13	6.02	5.64	4.83	---	4.82	---	4.65	4.07	---	4.32	4.42	
14	6.05	5.53	4.86	---	4.50	---	4.60	3.98	---	4.39	4.44	
15	6.09	5.51	4.89	---	4.38	---	4.74	3.80	---	4.44	4.28	
16	6.04	5.59	4.76	---	4.21	---	4.67	3.81	3.84	4.46	4.46	
17	5.96	5.62	4.86	---	4.09	---	---	3.71	3.80	4.53	4.54	
18	5.96	5.44	4.77	---	4.01	---	---	3.52	3.81	4.60	---	
19	5.95	5.54	5.13	---	3.87	---	---	3.60	3.76	4.62	---	
20	5.79	5.59	5.20	---	3.59	---	4.32	3.68	3.77	4.47	---	
21	5.84	5.52	5.18	---	---	---	4.15	3.79	3.81	4.51	---	
22	5.91	5.61	5.41	---	---	---	4.22	3.80	4.03	4.65	---	
23	6.21	5.60	5.18	---	---	4.84	4.15	3.83	4.05	4.64	---	
24	6.20	5.45	5.41	---	4.97	---	4.31	3.86	4.08	4.61	---	
25	6.09	5.45	5.41	4.50	---	---	4.22	3.86	3.98	4.63	---	
26	5.70	5.54	5.56	4.50	---	---	4.10	3.86	4.10	4.62	---	
27	5.91	5.47	5.55	4.38	---	---	3.79	---	4.20	4.64	---	
28	5.89	5.12	5.54	4.45	---	---	4.13	---	4.25	4.59	---	
29	5.82	4.93	4.37	4.57	---	---	4.23	---	4.22	4.45	---	
30	5.85	5.25	4.37	4.74	---	---	4.20	---	4.16	4.47	---	
31	5.78	---	4.27	4.74	---	---	---	---	---	4.48	---	
MEAN	6.15	5.54	5.06	4.55	4.44	4.84	4.40	3.87	3.99	4.42	4.38	
MAX	6.62	5.80	5.56	4.74	4.97	4.84	4.74	4.21	4.25	4.65	4.54	
MIN	5.70	4.93	4.27	4.38	3.59	4.84	3.79	3.52	3.76	4.05	4.28	

WTR YR 1981 MEAN 4.80 HIGH 3.52 MAY 18 LOW 6.62 OCT 7 AND OCT 8

415607080044601. Local number, ER 82.

LOCATION.--Lat 41°56'07", long 80°04'46", Hydrologic Unit 05010004, near McLane. Owner: U.S. Geological Survey.
AQUIFER.--Shale of Riceville Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 82 ft (25 m), cased to 56 ft (17.1 m), open hole.
DATUM.--Altitude of land-surface datum is 1,419 ft (433 m). Measuring point: Top of plywood cover, 3.50 ft (1.07 m) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.00 ft (3.048 m) below land-surface datum, March 17, 1973; lowest, 18.41 ft (5.611 m) below land-surface datum, Sept. 20, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.84	13.38	13.21	13.43	13.63	---	12.73	12.65	14.72	15.90	15.79	15.63
2	14.88	13.43	13.19	13.45	13.52	---	12.82	12.69	14.77	15.92	15.81	15.63
3	14.93	13.44	12.99	13.53	13.36	12.49	12.88	12.76	14.76	15.92	15.84	15.58
4	14.99	13.44	12.85	13.57	13.28	12.55	12.90	12.86	14.77	15.92	15.86	15.48
5	15.02	13.43	12.75	13.57	13.22	12.62	12.91	12.94	14.77	15.90	15.95	15.40
6	15.11	13.45	12.69	13.56	13.20	12.72	12.95	13.02	14.79	15.89	16.05	15.25
7	15.23	13.46	12.70	13.62	13.18	12.82	13.02	13.09	14.87	15.93	16.12	15.05
8	15.38	13.44	12.70	13.63	13.17	12.87	13.07	13.18	14.91	15.98	16.15	14.85
9	---	13.44	12.58	13.66	13.18	12.94	13.12	13.26	14.91	16.02	16.19	14.76
10	---	13.42	12.51	13.68	13.22	12.98	13.20	13.33	14.94	16.08	16.24	14.73
11	---	13.41	12.60	13.71	13.20	13.02	13.23	13.36	14.98	16.12	16.26	14.72
12	---	13.42	12.58	13.75	13.03	13.04	13.31	13.45	15.03	16.15	16.26	14.73
13	---	13.41	12.59	13.79	12.89	13.03	13.37	13.52	15.05	16.20	16.29	14.73
14	---	13.42	12.62	13.82	12.79	13.00	13.36	13.59	15.08	16.22	16.29	14.76
15	---	13.42	12.66	13.83	12.78	12.97	13.27	13.63	15.14	16.23	16.14	14.79
16	---	13.41	12.72	13.84	12.76	12.96	13.16	13.71	15.15	16.23	15.83	14.83
17	---	13.40	12.80	13.87	12.65	12.93	13.06	13.76	15.18	16.25	15.53	14.88
18	---	13.40	12.87	13.89	12.35	12.97	13.02	13.85	15.23	16.28	15.30	14.88
19	---	13.43	12.97	13.95	11.98	13.01	13.08	13.91	15.28	16.34	15.18	14.92
20	---	13.45	13.07	13.98	11.67	13.07	13.10	13.99	15.36	16.36	15.12	14.94
21	---	13.45	13.12	13.99	11.59	13.11	13.16	14.04	15.45	16.36	15.15	14.95
22	---	13.46	13.15	14.01	11.59	13.11	13.22	14.09	15.48	16.34	15.18	14.98
23	---	13.47	13.15	14.02	11.58	13.11	13.22	14.14	15.53	16.33	---	14.99
24	---	13.47	13.18	14.02	11.58	13.05	13.20	14.30	15.59	16.33	15.26	15.02
25	---	13.46	13.25	14.02	11.79	13.05	13.19	14.40	15.61	16.31	15.34	15.02
26	---	13.44	13.29	14.08	11.97	13.03	13.19	14.50	15.72	16.27	15.38	---
27	---	13.38	13.33	14.06	12.11	12.93	13.24	14.55	15.77	16.22	15.42	---
28	13.40	13.25	13.39	13.90	12.19	12.79	13.24	14.60	15.81	16.19	15.48	15.19
29	13.39	13.22	13.39	13.76	---	12.67	13.14	14.63	15.83	16.05	15.50	15.16
30	13.36	13.21	13.40	13.70	---	12.63	12.84	14.63	15.86	15.90	15.53	15.17
31	13.34	---	13.41	13.68	---	12.69	---	14.68	---	15.78	15.63	---
MEAN	14.49	13.41	12.96	13.79	12.62	12.90	13.11	13.71	15.21	16.13	15.74	15.04
MAX	15.38	13.47	13.41	14.08	13.63	13.11	13.37	14.68	15.86	16.36	16.29	15.63
MIN	13.34	13.21	12.51	13.43	11.58	12.49	12.73	12.65	14.72	15.78	15.12	14.72

WTR YR 1981 MEAN 14.08 HIGH 11.58 FEB 23 AND FEB 24 LOW 16.36 JUL 20 AND JUL 21

394843079351401. Local number, FA 17.

LOCATION.-Lat 39°48'43", long 79°35'14", Hydrologic unit 05020006, at Fort Necessity.
Owner: U.S. Geological Survey.
AQUIFER.--Shale and sandstone of Glenshaw Formation of Late Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 100 ft (30.5 m), cased to 19 ft (5.8 m), open hole.
DATUM.--Altitude of land-surface datum is 1,910 ft (582 m). Measuring point: Top of plywood cover 2.05 ft (62 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--November 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.71 ft (6.008 m) below land-surface datum, Feb. 23, 1971; lowest, 40.00 ft (12.192 m) below land-surface datum, Nov. 8, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.99	23.62	22.85	22.67	22.37	21.55	---	---	21.74	22.80	23.04	23.09
2	23.02	23.64	22.94	22.91	22.39	21.74	---	---	21.65	22.88	22.86	23.11
3	23.03	23.65	23.05	22.90	22.38	21.84	22.58	---	21.62	22.90	22.70	23.12
4	23.28	---	22.94	23.16	22.47	21.71	22.53	---	21.59	22.86	22.76	23.09
5	23.42	---	22.82	23.19	22.42	21.94	22.67	---	21.66	22.69	22.77	23.12
6	23.42	---	22.80	22.85	22.18	22.27	22.94	---	21.54	22.72	22.77	23.11
7	23.20	---	22.82	22.70	22.56	22.47	23.03	---	21.50	22.82	22.67	23.05
8	23.01	---	22.75	22.82	22.74	22.57	22.89	---	21.38	22.87	22.84	22.95
9	23.03	---	22.65	22.83	22.69	22.55	22.95	---	21.17	22.78	23.03	23.09
10	23.04	---	22.58	22.97	23.29	22.43	23.02	---	21.32	22.71	23.06	23.14
11	23.01	---	22.61	22.90	23.28	22.45	22.82	---	21.33	22.76	22.99	23.14
12	23.20	---	22.52	22.87	23.04	22.36	22.70	---	21.36	22.74	22.94	23.13
13	23.26	---	22.61	22.71	22.78	22.68	22.55	---	21.31	22.68	23.03	23.04
14	23.26	---	22.64	22.71	22.54	22.70	22.22	---	21.20	22.59	23.12	23.10
15	23.16	---	22.61	22.91	22.37	22.45	22.09	---	---	22.64	23.00	23.12
16	23.21	---	22.62	22.98	22.27	22.49	21.91	---	---	22.61	23.02	23.10
17	23.20	---	22.74	23.05	22.02	22.35	21.55	---	---	22.63	23.07	23.10
18	23.02	---	22.65	22.93	21.62	22.33	21.44	---	---	22.67	23.08	23.06
19	23.07	---	22.89	22.86	21.37	22.48	21.44	---	---	22.68	23.06	22.84
20	23.13	---	22.98	22.98	21.35	22.91	21.51	---	---	22.65	23.07	22.94
21	23.22	---	23.00	23.14	---	23.06	21.64	---	---	22.60	23.14	22.98
22	23.40	23.09	22.91	23.13	21.05	23.00	21.58	---	---	22.88	23.06	23.04
23	---	22.97	22.64	22.90	21.12	22.95	21.53	21.64	---	22.94	22.96	23.12
24	---	22.82	22.61	---	21.32	22.94	21.73	21.43	---	---	23.10	23.08
25	23.71	22.87	22.88	---	21.66	22.97	21.87	21.55	22.23	22.90	23.15	23.04
26	23.70	22.88	22.86	---	21.82	22.81	---	21.57	22.37	22.88	23.14	22.97
27	23.69	22.65	22.99	---	21.74	22.81	---	21.57	22.47	22.91	23.02	22.91
28	23.81	22.55	22.98	---	21.59	---	---	21.48	22.55	23.04	23.09	23.01
29	23.73	22.85	22.81	---	---	---	---	21.61	22.74	23.14	23.10	23.07
30	23.69	22.92	22.72	---	---	---	---	21.63	22.79	23.16	23.12	23.03
31	23.62	---	22.70	---	---	---	---	21.70	---	23.11	23.14	---
MEAN	23.29	23.04	22.78	22.92	22.16	22.47	22.23	21.58	21.78	22.81	23.00	23.06
MAX	23.81	23.65	23.05	23.19	23.29	23.06	23.03	21.70	22.79	23.16	23.15	23.14
MIN	22.99	22.55	22.52	22.67	21.05	21.55	21.44	21.43	21.17	22.59	22.67	22.84

WTR YR 1981 MEAN 22.67 HIGH 21.05 FEB 22 LOW 23.81 OCT 28

412823079030601. Local number, FO 11.

LOCATION.--Lat 41°28'23", long 79°03'06", Hydrologic Unit 05010005, at U.S. Forest Lands.
Owner: U.S. Geological Survey.
AQUIFER.--Clarion Formation of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 110 ft (33.5 m), cased to 23 ft (7.0 m), open hole.
DATUM.--Altitude of land-surface datum is 1,780 ft (543 m). Measuring point: Top of casing, 1.4 ft (43 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--August 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.78 ft (2.371 m) below land-surface datum, Jan. 27, 28, 1973; lowest, 11.52 ft (3.511 m) below land-surface datum, Sept. 14, 15, 16, 17, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.24	9.54	9.06	9.43		---	8.84			---	10.04	9.85
2	10.17	9.51	9.06	9.37		---	8.81			---	9.98	9.82
3	10.10	9.50	9.03	9.36		---	8.81			---	9.94	9.75
4	10.09	9.50	9.03	9.40		---	8.80			---	9.86	9.62
5	10.08	9.43	9.04	9.44		---	8.79			---	9.84	9.42
6	10.11	9.41	9.01	9.49		---	8.81			---	9.83	9.28
7	10.16	9.40	9.00	9.50		---	8.84			---	9.81	9.18
8	10.16	9.35	9.00	9.46		---	8.84			---	9.69	9.04
9	10.15	9.32	8.93	9.50		---	8.84			---	9.54	8.89
0	10.17	9.28	8.87	9.56		---	8.86			---	9.48	8.85
11	10.18	9.24	8.86	9.58		---	8.86			---	9.43	8.85
12	10.14	9.24	8.85	9.58		---	8.85			---	9.36	8.86
13	10.09	9.23	8.87	9.58		---	8.86			---	9.33	8.92
14	10.19	9.20	8.95	---		---	8.87			---	9.38	8.93
15	10.33	9.15	8.97	---		---	8.84			---	9.38	9.02
16	10.34	9.15	8.96	---		---	8.84			---	9.33	9.10
17	10.38	9.15	8.99	---		---	8.81			---	9.38	---
18	10.37	9.11	9.02	---		---	8.66			---	9.46	---
19	10.36	9.13	9.11	---		---	8.65			---	9.53	---
20	10.38	9.18	9.21	---		---	8.64			---	9.56	---
21	10.41	9.15	9.32	---		---	8.70			---	9.61	---
22	10.46	9.25	9.31	---		---	8.70			10.04	9.66	---
23	10.52	---	9.31	---		---	8.70			10.31	9.69	---
24	10.50	---	9.29	---		---	8.58			10.31	9.74	---
25	10.53	---	9.29	---		---	8.59			10.34	9.84	9.14
26	10.20	---	9.34	---		9.14	---			10.38	9.90	---
27	10.07	9.15	9.40	---		9.11	---			10.41	9.92	---
28	9.96	9.10	9.46	---		9.09	---			10.44	9.98	---
29	9.79	9.01	9.46	---		9.03	---			10.25	9.98	9.28
30	9.73	9.02	9.43	---		8.94	---			10.15	9.97	9.36
31	9.64	---	---	---		8.83	---			10.08	9.89	---
MEAN	10.19	9.26	9.11	9.48		9.02	8.78			10.27	9.69	9.22
MAX	10.53	9.54	9.46	9.58		9.14	8.87			10.44	10.04	9.85
MIN	9.64	9.01	8.85	9.36		8.83	8.58			10.04	9.33	8.85

WTR YR 1981 MEAN 9.45 HIGH 8.58 APR 24 LOW 10.53 OCT 25

394655080014301. Local number, GR 118.

LOCATION.--Lat 39°46'55", long 80°01'43", Hydrologic Unit 05020005, at State Game Land Number 223.
Owner: U.S. Geological Survey.
AQUIFER.--Shale and sandstone of Lower Waynesburg Formation of Late Pennsylvania age.
WELL CHARACTERISTICS --Drilled observation artesian well, diameter 6 in (15 cm), depth 104 ft (31.7 m), cased to 22 ft (6.7 m), open hole.
DATUM.--Altitude of land-surface datum is 1,000 ft (305 m). Measuring point: Top of casing, 2.02 ft (62 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.70 ft (9.053 m) below land-surface datum, April 12, 1981; lowest, 37.98 ft (11.576 m) below land-surface datum, Aug. 14, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.45	31.40	30.88	31.40	31.24	30.80	31.21	31.08	31.26	31.43	31.72	32.30
2	31.47	31.42	30.95	31.41	30.69	30.93	31.22	31.13	31.26	31.45	31.74	32.02
3	31.47	31.42	30.90	31.38	30.65	31.04	31.23	31.16	31.28	31.43	31.74	31.91
4	31.46	31.44	30.93	31.42	30.90	31.04	31.28	31.19	31.26	31.45	31.77	31.90
5	31.46	31.45	31.00	31.42	31.01	31.01	31.25	31.21	31.22	31.48	31.77	---
6	31.48	31.46	31.05	31.38	31.15	30.71	31.27	31.21	29.83	31.49	31.80	---
7	31.50	31.47	31.08	31.40	31.20	30.87	31.27	31.26	30.67	31.53	31.75	---
8	31.49	31.46	31.04	31.42	31.25	30.98	31.28	31.28	31.02	31.53	31.80	---
9	31.52	31.39	31.00	31.42	31.26	31.02	31.28	31.30	31.00	31.53	31.80	---
10	31.49	31.16	30.64	31.46	31.29	31.08	31.27	31.30	30.57	31.61	31.84	32.06
11	31.50	31.22	30.74	31.49	30.93	31.09	31.27	31.30	30.67	31.61	31.83	32.15
12	31.52	31.26	30.83	31.50	30.71	31.11	29.70	31.30	30.96	31.63	31.83	32.19
13	31.56	31.28	30.95	31.49	30.90	31.14	30.15	31.30	31.13	31.66	31.88	32.25
14	31.57	31.33	31.00	31.51	31.03	31.18	30.22	31.37	30.84	31.48	31.89	32.25
15	31.59	31.36	31.01	31.52	31.10	31.18	30.65	31.30	30.74	31.53	31.91	32.02
16	31.59	31.36	31.05	31.54	31.17	31.14	30.85	31.13	31.05	31.53	31.90	---
17	31.59	31.36	31.07	31.57	31.15	30.96	30.93	31.17	30.90	31.59	31.93	---
18	31.59	30.55	31.10	31.58	30.93	31.00	30.93	31.21	31.07	31.61	32.00	31.85
19	31.53	30.83	31.15	31.57	30.83	31.05	30.87	31.17	31.18	31.65	32.04	---
20	31.51	30.95	31.20	31.53	30.81	31.10	30.94	30.75	31.23	31.67	32.12	---
21	31.52	31.07	31.28	31.53	30.29	31.12	30.83	31.05	31.28	31.66	32.17	---
22	31.55	31.14	31.27	31.51	30.58	31.13	31.13	31.19	31.23	31.65	32.27	32.03
23	31.60	31.15	31.34	31.45	30.67	31.12	31.13	31.22	31.09	31.66	---	---
24	31.61	31.14	31.36	31.42	30.53	31.12	31.02	31.27	31.20	31.68	---	32.10
25	31.57	30.67	31.38	31.41	30.81	31.13	30.95	31.31	31.23	31.72	---	32.18
26	31.16	30.83	31.39	31.23	30.97	31.15	30.97	31.35	31.25	31.73	32.69	32.24
27	31.25	30.89	31.45	30.71	31.05	31.16	30.95	31.32	31.33	31.73	32.87	32.34
28	31.30	30.85	31.45	30.91	31.05	31.16	30.93	31.32	31.37	31.62	33.00	32.43
29	31.34	30.84	31.45	31.08	---	31.15	30.97	31.28	31.40	31.57	33.14	32.66
30	31.35	30.84	31.41	31.16	---	31.16	30.99	31.31	31.43	31.65	33.14	32.89
31	31.36	---	31.41	31.18	---	31.20	---	31.23	---	31.70	33.07	---
MEAN	31.48	31.17	31.12	31.39	30.93	31.07	30.96	31.22	31.07	31.59	32.12	32.20
MAX	31.61	31.47	31.45	31.58	31.29	31.20	31.28	31.37	31.43	31.73	33.14	32.89
MIN	31.16	30.55	30.64	30.71	30.29	30.71	29.70	30.75	29.83	31.43	31.72	31.85

WTR YR 1981 MEAN 31.33 HIGH 29.70 APR 12 LOW 33.14 AUG 29 AND AUG 30

403702079093301. Local number, IN 1.

LOCATION.--Lat 40°37'02", long 79°09'33", Hydrologic Unit 05010007, at Indiana University of Pennsylvania, Indiana. Owner: Commonwealth of Pennsylvania.

AQUIFER.--Sandstone of Glenshaw Formation of Late Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (15 cm), depth 198 ft (60.4 m), casing information not available.

DATUM.--Altitude of land-surface datum is 1,305 ft (398 m). Measuring point: Top of casing, 1.2 ft (37 cm) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--October 1944 to June 1947, September 1949 to January 1950, January 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.50 ft (22.098 m) below land-surface datum, April 13, 1962; lowest, 87.03 ft (26.527 m) below land-surface datum, Oct. 19, 1946.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75.27	75.62	75.39	75.45	75.56	74.81	75.21	74.86	75.33	74.65	74.70	75.50
2	75.33	75.74	75.42	75.71	75.57	74.92	75.31	74.99	75.24	74.70	74.58	75.50
3	75.37	75.71	75.71	75.73	75.67	75.03	75.23	75.05	75.17	74.68	74.56	75.51
4	75.60	75.48	75.62	75.90	75.63	74.96	75.15	74.97	75.08	74.59	74.65	75.44
5	75.72	75.59	75.40	75.96	75.68	74.97	75.26	74.88	75.11	74.50	74.71	75.32
6	75.73	75.63	75.36	75.88	75.43	75.20	75.47	75.00	74.97	74.61	74.71	75.26
7	75.57	75.51	75.33	---	75.42	75.32	75.51	75.08	75.03	74.69	74.67	75.17
8	75.47	75.74	75.28	---	75.49	75.33	75.32	75.11	74.99	74.71	74.84	75.05
9	75.64	75.69	75.23	---	75.65	75.32	75.46	75.08	74.93	74.63	75.09	75.16
10	75.63	75.88	75.31	---	75.61	75.20	75.53	75.03	75.06	74.69	75.16	75.14
11	75.55	75.89	75.36	---	75.93	75.13	75.30	74.89	75.09	74.79	75.10	75.20
12	75.76	75.90	75.26	---	76.03	75.10	75.28	75.03	75.07	74.77	75.12	75.23
13	75.85	75.85	75.31	---	75.86	75.13	75.39	75.03	75.03	74.75	75.22	75.21
14	75.87	75.71	75.33	---	75.59	75.22	75.29	74.95	74.97	74.82	75.24	75.10
15	75.83	75.75	75.25	---	75.44	75.12	75.39	74.78	74.93	74.86	75.14	75.16
16	75.86	75.90	75.30	---	75.28	75.10	75.13	74.92	74.83	74.89	75.22	75.21
17	75.83	75.86	75.40	---	75.23	75.08	74.73	74.93	74.82	74.96	75.28	75.34
18	75.71	75.79	75.35	---	75.17	75.05	74.90	74.88	74.83	75.04	75.33	75.34
19	75.78	75.88	75.54	---	75.01	75.02	74.90	74.75	74.70	75.05	75.30	75.22
20	75.85	75.86	75.72	76.01	74.70	75.12	74.90	74.78	74.65	74.93	75.27	75.39
21	75.96	75.82	75.73	75.98	74.83	75.47	74.98	74.88	74.68	74.72	75.35	75.45
22	76.22	75.91	75.67	75.91	74.78	75.57	74.86	74.88	74.69	74.86	75.35	75.55
23	76.28	75.83	75.41	75.91	74.51	75.42	74.68	74.95	74.89	---	75.27	75.66
24	76.18	75.61	75.29	76.01	74.76	75.34	74.75	74.96	74.92	---	75.36	75.72
25	75.86	75.73	75.70	76.05	74.93	75.38	75.07	74.99	74.81	---	75.43	75.76
26	75.89	75.74	75.66	75.85	75.04	75.40	75.10	75.04	74.73	---	75.43	75.69
27	75.91	75.49	75.73	75.89	75.04	75.45	75.05	75.02	74.74	---	75.44	75.58
28	75.67	75.12	75.76	75.87	74.75	75.46	74.99	74.99	74.73	74.63	75.56	75.82
29	75.75	75.35	75.60	76.12	---	75.18	74.92	75.08	74.68	74.65	75.61	75.87
30	75.74	75.47	75.53	76.11	---	75.03	74.92	75.16	74.59	74.69	75.57	75.87
31	75.56	---	75.53	76.06	---	75.26	---	75.32	---	74.71	75.54	---
MEAN	75.75	75.70	75.47	75.91	75.31	75.20	75.13	74.98	74.91	74.75	75.15	75.41
MAX	76.28	75.91	75.76	76.12	76.03	75.57	75.53	75.32	75.33	75.05	75.61	75.87
MIN	75.27	75.12	75.23	75.45	74.51	74.81	74.68	74.75	74.59	74.50	74.56	75.05

WTR YR 1981 MEAN 75.29 HIGH 74.50 JUL 5 LOW 76.28 OCT 23

410650078575801. Local number, JE 23.

LOCATION.--Lat 41°06'50", long 78°57'58", Hydrologic Unit 05010006, at State Game Land Number 244.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone and shale of Kittanning Formation of Middle Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 101 ft (30.8 m), cased to 37 ft (11.3 m), open hole.

DATUM.--Altitude of land-surface datum is 1,660 ft (506 m). Measuring point: Top of plywood cover, 2.05 ft (62 cm) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--February 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.17 ft (4.319 m) below land-surface datum, April 13, 1970; lowest, 32.12 ft (9.790 m) below land-surface datum, Aug. 25, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.11	28.80	28.66	28.69	28.57	28.18	28.16	27.85	28.67	28.61	28.62	---
2	29.57	29.00	28.58	28.91	28.83	28.18	28.22	27.92	28.62	28.61	28.53	---
3	29.53	28.83	28.75	28.91	28.85	28.29	28.14	27.96	28.60	28.52	28.69	---
4	29.63	28.59	28.65	28.74	28.69	28.24	28.07	27.93	28.65	28.45	28.72	---
5	29.65	28.58	28.96	28.68	28.74	28.05	28.13	27.84	28.72	28.52	28.68	---
6	29.55	28.55	28.94	28.46	28.56	28.25	28.31	27.99	28.62	28.56	28.62	---
7	29.20	28.86	28.74	28.66	28.56	28.38	28.31	28.02	28.73	28.60	28.56	---
8	28.93	29.05	28.55	28.77	28.57	28.39	28.17	28.05	28.69	28.61	28.71	---
9	28.97	28.80	28.67	28.73	28.73	28.39	28.38	28.02	28.53	28.55	28.90	---
10	28.84	28.79	28.49	28.62	28.71	28.25	28.43	28.01	28.60	28.62	28.93	---
11	28.65	28.95	28.46	28.52	28.98	28.20	28.16	27.97	28.67	28.66	28.76	---
12	28.68	28.91	28.37	28.56	29.08	28.20	28.42	28.18	28.64	28.59	28.76	---
13	28.65	28.82	28.67	28.56	28.83	28.15	28.49	28.18	28.55	28.47	28.66	---
14	28.66	28.79	28.60	28.58	28.53	28.26	28.65	28.13	28.59	28.58	28.68	---
15	28.78	28.81	28.49	28.67	28.48	28.11	28.74	28.14	28.59	28.58	28.67	---
16	28.92	28.72	28.44	28.67	28.43	28.03	28.55	28.28	28.55	28.61	28.90	---
17	28.86	28.54	28.52	28.61	28.45	28.07	28.12	28.33	28.58	28.65	28.92	---
18	28.73	28.88	28.45	28.55	28.45	28.07	28.39	28.24	28.56	28.69	28.86	---
19	29.03	28.88	28.77	28.56	28.32	28.04	28.34	28.10	28.50	28.64	28.77	---
20	29.07	28.73	28.77	28.57	28.31	28.33	28.40	28.22	28.63	28.57	28.73	---
21	29.44	28.55	28.66	28.54	28.44	28.51	28.39	28.16	28.67	28.76	28.76	28.66
22	29.74	28.60	28.57	28.56	28.40	28.50	28.25	28.17	28.72	28.86	---	28.78
23	29.68	28.68	28.40	28.64	28.30	28.34	28.02	28.19	28.80	28.88	---	28.78
24	29.26	28.68	28.37	28.64	28.33	28.33	28.03	28.19	28.76	28.76	---	28.70
25	28.81	28.66	28.85	28.64	28.42	28.40	28.24	28.15	28.55	28.64	---	28.71
26	29.13	28.63	28.67	28.64	28.43	28.40	28.25	28.15	28.61	28.57	---	28.57
27	29.22	28.40	28.68	28.65	28.38	28.44	28.17	28.16	28.61	28.63	---	28.65
28	28.90	28.40	28.59	28.71	28.14	28.47	28.10	28.16	28.57	28.55	---	28.79
29	29.26	28.70	28.48	28.92	---	28.16	27.93	28.28	28.48	28.68	---	28.70
30	29.15	28.86	28.51	28.87	---	28.18	27.97	28.34	28.53	28.73	---	28.68
31	28.84	---	28.51	28.82	---	28.29	---	28.66	---	28.70	---	---
MEAN	29.11	28.73	28.61	28.67	28.55	28.26	28.26	28.13	28.62	28.63	28.73	28.70
MAX	29.74	29.05	28.96	28.92	29.08	28.51	28.74	28.66	28.80	28.88	28.93	28.79
MIN	28.65	28.40	28.37	28.46	28.14	28.03	27.93	27.84	28.48	28.45	28.53	28.57

WTR YR 1981 MEAN 28.57 HIGH 27.84 MAY 5 LOW 29.74 OCT 22

410538080280801. Local number, LA 1201.

LOCATION.--Lat 41°05'38", long 80°28'08", Hydrologic Unit 05030102, at State Game Land 150, near Pulaski. Owner: U.S. Geological Survey.

AQUIFER.--Shale and sandstone of Connoquenessing Formation of Early Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 150 ft (45.7 m), cased to 30 ft (9.14 m), open hole.

DATUM.--Altitude of land-surface datum is 1,040 ft (317 m). Measuring point: Top of plywood cover, 3.45 ft (1.05 m) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--November 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.25 ft (3.734 m) below land-surface datum, May 19, 1978; lowest, 19.95 ft (6.080 m) below land-surface datum, Nov. 16, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.51	16.14	15.94	16.48	15.75	14.08	15.53	15.22	16.82	16.13	17.32	17.80
2	16.59	16.20	15.84	16.55	15.58	14.37	15.63	15.28	16.81	16.24	17.32	17.73
3	16.62	16.20	15.81	16.57	15.36	14.58	15.72	15.38	16.83	16.37	17.32	17.05
4	16.72	16.17	15.76	16.67	15.36	14.71	15.77	15.52	16.70	16.45	17.35	16.63
5	16.79	16.21	15.70	16.69	15.42	14.93	15.61	15.60	16.56	16.52	17.41	16.08
6	16.82	16.22	15.75	16.64	15.54	15.14	15.43	15.70	16.47	16.63	17.37	15.74
7	16.85	16.25	15.73	16.73	15.59	15.32	15.43	15.79	16.54	16.73	17.39	15.59
8	16.89	16.34	15.68	16.78	15.72	15.40	15.48	15.89	16.53	16.81	17.41	15.57
9	16.97	16.35	15.57	16.80	15.87	15.49	15.62	16.01	16.30	16.86	17.46	15.58
10	16.97	16.46	15.38	16.83	15.90	15.53	15.72	16.07	15.94	16.95	17.49	15.67
11	17.02	16.52	15.19	16.85	15.72	15.57	15.78	16.14	15.78	17.03	17.51	15.78
12	17.10	16.56	15.14	16.86	15.54	15.65	15.74	16.12	15.80	17.10	17.53	15.91
13	17.15	16.56	15.19	16.85	15.46	15.76	15.70	16.09	15.83	17.11	17.55	16.02
14	17.17	16.59	15.31	16.90	15.46	15.77	15.54	16.08	15.79	17.18	17.60	16.13
15	17.20	16.64	15.35	16.97	15.45	15.82	15.38	16.01	15.81	17.22	17.57	16.25
16	17.23	16.68	15.48	17.00	15.41	15.85	15.25	15.95	15.85	17.27	17.60	16.37
17	17.24	16.67	15.55	17.00	15.18	15.93	15.17	15.99	15.89	17.33	17.63	16.45
18	17.18	16.71	15.64	17.00	14.77	---	15.11	16.03	15.97	17.40	17.66	16.49
19	17.06	16.77	15.77	17.01	14.38	---	15.14	---	16.02	17.48	17.66	16.53
20	17.07	16.75	15.91	17.04	13.56	---	15.28	---	16.14	17.48	17.73	16.65
21	17.14	16.75	15.99	17.05	12.94	16.57	15.39	16.11	16.15	17.34	17.68	16.72
22	17.16	17.04	16.04	17.00	---	16.56	15.40	16.23	16.11	17.28	17.69	16.74
23	17.20	17.03	16.08	17.00	12.77	16.56	15.42	16.32	16.24	17.30	17.72	16.85
24	17.20	16.96	16.19	17.05	12.73	16.38	15.49	16.40	16.28	17.34	17.74	16.92
25	17.15	16.82	16.29	17.05	12.96	16.34	15.59	16.53	16.26	17.36	17.79	16.98
26	16.71	16.69	16.37	16.99	13.30	16.33	15.65	16.58	16.07	17.36	17.82	17.02
27	16.48	16.53	16.45	16.47	13.46	16.16	15.68	16.57	15.83	17.39	17.84	17.05
28	16.30	16.32	16.47	16.13	13.78	15.70	15.71	16.62	15.84	17.40	17.88	17.17
29	16.21	16.14	16.46	15.94	---	15.49	15.70	16.67	15.91	17.32	17.82	17.21
30	16.15	16.07	16.50	15.88	---	15.36	15.45	16.71	16.01	17.32	17.78	17.25
31	16.11	---	16.46	15.86	---	15.43	---	16.78	---	17.31	17.78	---
MEAN	16.87	16.51	15.84	16.73	14.78	15.60	15.52	16.08	16.17	17.06	17.59	16.53
MAX	17.24	17.04	16.50	17.05	15.90	16.57	15.78	16.78	16.83	17.48	17.88	17.80
MIN	16.11	16.07	15.14	15.86	12.73	14.08	15.11	15.22	15.78	16.13	17.32	15.57

WTR YR 1981 MEAN 16.30 HIGH 12.73 FEB 23 LOW 17.88 AUG 28

413852078341401. Local number, MC 110.

LOCATION.--Lat 41°38'52", long 78°34'14", Hydrologic Unit 05010005, at State Forest Land.
Owner: U.S. Geological Survey.
AQUIFER.--Pottsville Formation of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 107 ft (32.6 m), cased to 28 ft (8.5 m), open hole.
DATUM.--Altitude of land-surface datum is 2,050 ft (625 m). Measuring point: Top of casing, 2.1 ft (64 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--August 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.08 ft (8.253 m) below land-surface datum, May 17, 1974; lowest, 30.09 ft (9.171 m) below land-surface datum, August 8, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.32	28.18	---	---	28.34	---	---	27.66	28.13	28.24	28.37	28.17
2	28.26	28.33	---	---	28.10	---	---	27.64	28.09	28.26	28.27	28.23
3	28.29	28.33	28.38	---	28.28	---	---	27.58	28.07	28.23	28.15	28.24
4	28.40	28.19	28.38	---	28.35	---	---	27.60	28.10	28.14	28.17	28.22
5	28.53	28.08	28.30	---	---	---	---	27.69	28.13	28.01	28.22	28.28
6	28.54	28.10	28.17	---	---	---	---	27.72	28.04	28.13	28.23	28.28
7	28.46	28.06	28.06	---	---	---	---	27.71	28.15	28.21	28.16	28.25
8	28.36	28.21	27.93	---	---	---	---	27.70	28.15	28.22	28.15	28.09
9	28.39	28.20	27.78	---	---	---	---	27.57	28.02	28.16	28.29	28.14
10	28.39	28.36	27.87	---	---	---	---	27.61	28.18	28.16	28.33	28.23
11	28.25	28.43	27.90	---	---	---	---	27.61	28.33	28.22	28.31	28.23
12	28.40	28.43	27.90	---	---	---	---	27.58	28.34	28.23	28.20	28.21
13	28.49	28.43	27.89	---	---	---	---	27.42	28.32	28.17	28.21	28.18
14	28.51	28.23	27.94	---	---	---	---	27.57	28.23	28.18	28.22	28.08
15	28.51	28.16	27.94	---	---	---	---	27.63	28.22	28.23	28.16	28.16
16	28.51	28.26	27.91	---	---	---	---	27.64	28.16	28.22	28.17	28.21
17	28.49	28.28	27.95	---	---	---	---	27.59	28.21	28.25	28.27	28.25
18	28.30	28.25	27.89	---	---	---	---	27.64	28.23	28.29	28.30	28.23
19	28.40	28.34	28.21	---	---	---	---	27.68	28.15	28.29	28.30	28.03
20	28.46	28.35	---	---	---	---	---	27.70	28.10	28.22	28.27	28.20
21	28.50	28.31	---	---	---	---	---	27.75	28.08	28.20	28.28	28.20
22	28.66	28.28	---	---	---	28.47	27.84	27.78	28.13	28.36	28.28	28.26
23	28.73	28.28	27.97	28.14	---	---	27.78	27.78	28.27	28.41	28.23	28.28
24	28.73	28.17	27.97	28.27	---	---	27.49	27.83	28.30	28.41	28.23	28.28
25	28.52	28.10	---	28.31	27.82	---	27.71	---	28.19	28.40	28.31	---
26	28.41	---	---	28.26	---	---	27.74	---	28.23	28.37	28.30	---
27	28.47	---	---	28.22	---	---	27.79	27.85	28.31	28.37	28.25	28.03
28	28.41	---	---	28.27	---	---	27.77	27.81	28.35	28.36	28.32	28.23
29	28.39	---	---	28.48	---	---	27.55	27.85	28.34	28.30	28.33	28.27
30	28.39	---	---	28.53	---	---	27.58	27.87	28.24	28.37	---	28.28
31	28.27	---	---	28.53	---	---	---	28.01	---	28.41	28.21	---
MEAN	28.44	28.25	28.02	28.33	28.18	28.47	27.69	27.69	28.19	28.26	28.25	28.21
MAX	28.73	28.43	28.38	28.53	28.35	28.47	27.84	28.01	28.35	28.41	28.37	28.28
MIN	28.25	28.06	27.78	28.14	27.82	28.47	27.49	27.42	28.02	28.01	28.15	28.03

WTR YR 1981 MEAN 28.16 HIGH 27.42 MAY 13 LOW 28.73 OCT 23 AND OCT 24

412350080223701. Local number, MR 1364.

LOCATION.--Lat 41°23'50", long 80°22'37", Hydrologic Unit 05030102, at Greenville. Owner: Borough of Greenville.
AQUIFER.--Sandstone of Cussewago Formation of Early Mississippian age.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (15 cm), depth 235 ft (71.6 m), cased to 41 ft (12.5 m), open hole.
DATUM.--Altitude of land-surface datum is 965 ft (294 m). Measuring point: Top of plywood cover, 2.10 ft (64 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--March 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.43 ft (44 cm) below land-surface datum, Dec. 25, 1968; lowest, 8.31 ft (2.533 m) below land-surface datum, Feb. 12, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.95	5.16	5.05	5.33	5.48	4.33	5.30	4.16	4.62	5.60	4.37	6.09
2	5.02	5.51	5.01	5.88	4.99	4.27	5.19	4.24	4.52	5.55	4.25	5.93
3	5.00	5.16	5.16	5.59	4.83	4.36	4.96	4.41	4.57	5.76	4.25	5.32
4	5.19	5.03	5.10	5.69	4.90	4.39	5.18	4.47	4.47	5.64	4.38	4.81
5	5.40	5.14	5.11	5.79	4.90	4.46	4.61	4.44	4.26	5.39	4.37	4.87
6	5.25	5.01	5.40	5.51	4.88	4.63	4.67	4.55	---	5.49	4.41	4.70
7	5.41	4.94	5.21	5.56	4.97	4.66	4.58	4.53	---	5.60	4.42	4.88
8	5.37	5.09	5.08	5.45	5.05	4.75	4.68	4.47	4.58	5.70	4.39	4.87
9	5.35	5.07	5.01	---	5.43	4.72	4.86	4.47	4.54	5.63	4.31	5.02
10	5.30	5.27	4.93	---	5.26	4.70	4.93	4.45	4.12	5.49	4.44	5.27
11	5.35	5.62	4.88	---	5.05	4.78	4.80	4.50	4.34	5.79	4.40	5.46
12	5.38	5.31	4.79	---	4.88	4.73	5.03	4.48	4.37	5.61	4.34	5.25
13	5.51	5.19	4.78	---	5.16	4.97	4.75	4.67	4.31	5.71	4.31	5.32
14	5.44	5.26	4.88	---	5.05	4.96	4.71	4.67	3.97	5.66	4.71	5.31
15	5.28	5.62	4.72	---	5.02	4.90	4.69	4.35	4.28	5.71	4.61	5.31
16	5.63	5.58	5.60	---	4.90	4.84	4.42	4.51	4.35	5.66	4.10	5.44
17	5.38	5.37	5.00	---	4.52	4.87	4.80	4.68	4.43	5.84	4.52	5.56
18	5.11	5.37	4.90	---	4.35	4.80	4.80	4.51	4.12	5.88	4.52	5.45
19	5.23	6.00	5.23	---	4.14	4.78	4.71	4.53	4.17	5.97	4.55	5.57
20	5.23	5.50	5.68	5.33	3.72	4.97	4.52	4.33	4.26	5.82	5.86	5.40
21	5.17	5.44	5.56	5.54	4.01	5.26	4.47	4.83	4.46	4.86	5.91	5.43
22	5.28	6.07	5.42	5.44	4.03	5.35	4.47	4.71	4.68	4.45	5.70	6.18
23	5.36	5.24	5.28	5.68	3.93	5.35	4.39	4.81	5.05	4.56	5.63	6.37
24	5.21	5.37	5.47	5.75	3.90	5.18	4.56	4.74	4.83	4.42	5.83	6.36
25	5.29	5.37	5.56	5.66	4.05	5.39	4.37	5.07	4.95	4.51	5.79	6.54
26	5.22	5.33	5.63	5.45	4.10	4.93	4.58	5.02	5.26	4.46	5.85	6.38
27	5.08	5.32	5.55	5.21	4.10	4.98	4.46	4.94	5.71	4.44	5.85	5.65
28	5.09	5.09	5.50	5.22	4.25	4.99	4.47	4.59	5.30	4.42	5.82	5.41
29	5.15	4.93	5.62	5.32	---	5.51	4.11	4.43	5.34	4.13	5.95	5.39
30	5.07	5.18	5.24	5.22	---	4.76	3.84	4.31	5.39	4.38	5.95	5.21
31	5.02	---	5.35	5.16	---	4.82	---	4.81	---	4.44	5.99	---
MEAN	5.25	5.3[illegible]	5.22	5.49	4.64	4.85	4.66	4.57	4.62	5.24	4.96	5.49
MAX	5.63	6.07	5.68	5.88	5.48	5.51	5.30	5.07	5.71	5.97	5.99	6.54
MIN	4.95	4.93	4.72	5.16	3.72	4.27	3.84	4.16	3.97	4.13	4.10	4.70

WTR YR 1981 MEAN 5.02 HIGH 3.72 FEB 20 LOW 6.54 SEP 25

400008079142801. Local number, SO 2.

LOCATION.--Lat 40°00'08", long 79°14'28", Hydrologic Unit 05020006, at Laurel Hill State Park.
Owner: Commonwealth of Pennsylvania.
AQUIFER.--Shale and sandstone of Allegheny Group of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (15 cm) to 4 in (10 cm), depth 450 ft (137 m), cased to 311 ft (94.8 m), open hole.
DATUM.--Altitude of land-surface datum is 2,040 ft (622 m). Measuring point: Top of casing, 1.43 ft (44 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--April 1937 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.42 ft (8.358 m) below land-surface datum, April 9, 1980; lowest, 35.97 ft (10.963 m) below land-surface datum, August 21, 1937.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.15	---	31.08	31.05	31.25	30.86	---	30.20	30.16	30.10	30.44	30.76
2	31.14	---	31.07	31.04	31.18	30.86	31.55	30.23	30.17	30.10	30.42	30.77
3	31.15	---	31.10	31.04	31.11	30.86	31.55	30.28	30.12	30.11	30.40	30.79
4	31.17	---	31.10	31.06	31.15	30.80	31.55	30.26	30.07	30.10	30.40	30.79
5	31.24	---	31.10	31.08	31.16	30.74	31.54	30.25	30.04	30.10	30.42	30.77
6	31.27	---	31.10	31.08	31.16	30.79	31.57	30.24	30.03	30.10	30.42	30.80
7	31.27	---	31.09	31.02	31.16	30.81	31.61	30.25	30.03	30.16	30.42	30.81
8	31.27	---	31.05	31.03	31.13	30.82	31.58	30.28	30.03	30.18	30.42	30.80
9	31.30	---	31.00	31.04	31.12	30.81	31.57	30.28	30.01	30.18	30.49	30.79
10	31.30	---	30.96	31.06	31.14	30.78	31.58	30.28	29.97	30.21	30.54	30.81
11	31.30	---	---	31.06	31.12	30.74	31.38	30.23	30.00	30.25	30.56	30.85
12	31.32	---	31.17	31.06	31.18	30.73	31.30	30.07	30.03	30.28	30.58	30.87
13	31.36	---	31.17	31.06	31.21	30.71	31.30	30.07	30.06	30.28	30.60	30.89
14	31.37	---	31.15	31.05	31.21	30.71	31.43	30.07	30.02	30.15	30.65	30.87
15	31.37	---	31.15	31.09	31.21	30.66	31.44	30.07	29.99	30.20	30.64	30.87
16	31.37	---	31.15	31.10	31.19	30.56	31.41	30.01	30.00	30.22	30.61	30.81
17	31.46	---	31.13	31.12	31.17	30.56	31.36	30.07	30.00	30.25	30.67	30.85
18	31.46	---	31.09	31.13	31.10	30.55	31.38	30.07	30.03	30.28	30.69	30.87
19	31.45	---	31.09	31.13	31.06	30.54	31.36	30.07	30.03	30.29	30.71	30.86
20	31.48	---	31.17	31.15	30.99	30.58	31.40	30.07	30.01	30.28	30.73	30.85
21	31.48	---	31.18	31.16	---	30.60	31.37	30.07	30.01	30.25	30.76	30.88
22	31.57	---	31.18	31.16	---	30.60	31.22	30.07	29.97	30.29	30.79	30.88
23	31.60	---	31.18	31.15	---	30.60	31.21	30.12	30.00	30.33	30.81	30.93
24	31.61	---	31.05	31.15	---	30.60	---	30.12	30.02	30.33	30.83	30.94
25	---	31.17	31.08	31.15	30.89	31.63	---	30.16	30.02	30.39	30.88	30.95
26	---	31.15	31.09	31.15	30.97	31.63	30.23	30.16	30.00	30.39	30.89	30.94
27	---	31.16	31.09	31.15	30.97	31.63	30.23	30.13	30.06	30.38	30.89	30.93
28	---	31.14	31.11	31.17	30.86	31.58	30.23	30.10	30.10	30.33	30.93	30.94
29	---	31.09	31.11	31.21	---	31.58	30.23	30.10	30.11	30.29	30.95	30.95
30	---	31.07	31.09	31.25	---	31.57	30.20	30.11	30.11	30.38	30.93	30.97
31	---	---	31.08	31.25	---	31.35	---	30.09	---	30.42	30.91	---
MEAN	31.35	31.13	31.11	31.11	31.11	30.90	31.21	30.15	30.04	30.25	30.66	30.86
MAX	31.61	31.17	31.18	31.25	31.25	31.63	31.61	30.28	30.17	30.42	30.95	30.97
MIN	31.14	31.07	30.96	31.02	30.86	30.54	30.20	30.01	29.97	30.10	30.40	30.76

WTR YR 1981 MEAN 30.78 HIGH 29.97 JUN 10 AND JUN 27 LOW 31.63 MAR 25 AND OTHERS

414159079213601. Local number, WR 50.

LOCATION.--Lat 41°41'59", long 79°21'36", Hydrologic Unit 05010003, at State Game Land Number 86.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Cattaraugus Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 105 ft (32 m), cased to 46 ft (14 m), open hole.
DATUM.--Altitude of land-surface datum is 1,170 ft (357 m). Measuring point: Top casing, 2.0 ft (61 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--August 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 40.00 ft (12.192 m) below land-surface datum, June 9, 1973; lowest, 45.27 ft (13.798 m) below land-surface datum, Nov. 5, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44.60	44.64	44.24	43.62	44.56	42.61	42.39	41.13	42.45	42.75	44.14	44.70
2	44.54	44.72	44.26	43.67	44.28	42.57	42.38	41.13	42.45	42.83	44.10	44.69
3	44.53	44.72	44.25	43.69	44.36	42.59	42.39	41.18	42.43	42.88	44.08	44.72
4	44.59	44.67	44.28	43.82	44.40	42.59	42.35	41.22	42.36	42.87	44.06	44.72
5	44.74	44.55	44.26	43.90	44.46	42.55	42.28	41.20	42.35	42.83	44.11	44.68
6	44.79	44.56	44.22	43.90	44.39	42.51	42.32	41.22	42.26	42.89	44.12	44.65
7	44.78	44.54	44.16	43.73	44.35	42.65	42.38	41.33	42.32	43.01	44.11	44.65
8	44.74	44.53	44.09	43.87	44.20	42.78	42.35	41.41	42.37	43.08	44.05	44.63
9	44.75	44.54	43.90	43.89	44.32	42.82	42.24	41.43	42.24	43.09	44.14	44.53
10	44.76	44.58	43.79	43.97	44.34	42.78	42.30	41.43	42.31	43.19	44.19	44.56
11	44.73	44.67	43.74	43.97	44.28	42.72	42.25	41.41	42.45	43.27	44.21	44.59
12	44.75	44.72	43.77	---	44.48	42.66	42.19	41.47	42.55	43.32	44.21	44.61
13	44.83	44.72	43.65	---	44.50	42.55	42.26	41.55	42.57	43.31	44.26	44.64
14	44.86	44.67	43.66	---	44.46	42.55	42.24	41.59	42.55	43.36	44.29	44.62
15	44.87	44.64	43.69	---	44.38	42.55	42.22	41.54	42.50	43.43	44.26	44.60
16	44.89	44.69	43.62	---	44.25	42.46	42.26	41.68	42.41	43.49	44.19	44.61
17	44.90	44.70	43.65	---	44.10	42.42	42.10	41.78	42.28	43.56	44.28	44.65
18	44.82	44.59	43.60	---	43.97	42.40	41.82	41.84	42.26	43.62	44.35	44.71
19	44.77	44.62	43.77	---	43.78	42.40	41.77	41.85	42.20	43.67	44.37	44.70
20	44.78	44.62	43.90	---	43.45	42.41	41.69	41.89	42.16	43.64	44.43	44.62
21	44.83	44.62	43.94	---	43.28	42.63	41.73	41.94	42.12	43.61	44.51	44.70
22	44.97	44.63	43.79	---	43.15	42.75	41.70	42.00	42.06	43.75	44.51	44.71
23	45.07	44.63	43.67	---	42.91	42.77	41.61	42.08	42.20	43.86	44.51	44.79
24	45.06	44.59	43.72	---	42.66	42.74	41.39	42.12	42.27	43.89	44.54	44.84
25	45.00	44.50	43.75	---	42.68	42.79	41.40	42.14	42.29	43.91	44.59	44.89
26	44.67	44.56	43.84	44.39	42.75	42.80	41.49	42.19	42.41	43.93	44.63	44.86
27	44.71	44.55	43.86	44.40	42.80	42.74	---	42.18	42.53	43.94	---	44.81
28	44.68	44.38	43.67	44.44	42.78	42.77	41.46	42.18	42.60	43.96	---	44.88
29	44.71	44.21	43.67	44.60	---	42.70	41.34	42.17	42.65	43.90	---	44.93
30	44.74	44.24	43.70	44.70	---	42.52	41.18	42.22	42.68	44.02	---	44.94
31	44.72	---	43.69	44.70	---	42.40	---	42.39	---	44.10	44.71	---
MEAN	44.78	44.59	43.86	44.07	43.87	42.62	41.98	41.71	42.38	43.45	44.29	44.71
MAX	45.07	44.72	44.28	44.70	44.56	42.82	42.39	42.39	42.68	44.10	44.71	44.94
MIN	44.53	44.21	43.60	43.62	42.66	42.40	41.18	41.13	42.06	42.75	44.05	44.53

WTR YR 1981 MEAN 43.50 HIGH 41.13 MAY 1 AND MAY 2 LOW 45.07 OCT 23

400233080261301. Local number, WS 155.

LOCATION.--Lat 40°02'33", long 80°26'13", Hydrologic Unit 05030106, near Good Intent.
Owner: U.S. Geological Survey.
AQUIFER.--Washington Formation of Early Permian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 160 ft (48.8 m), cased to 19 ft (5.79 m), open hole.
DATUM.--Altitude of land-surface datum is 1,110 ft (338 m). Measuring point: Top of casing, 2.0 ft (61 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.25 ft (9.830 m) below land-surface datum, Jan. 14, 1974; lowest, 39.01 ft (11.890 m) below land-surface datum, July 11, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.45	35.52	---	---	---	33.85	35.41	34.56	35.15	35.38	34.59	35.72
2	35.48	35.60	---	---	---	34.02	35.50	34.73	35.20	35.46	34.79	35.68
3	35.48	35.56	---	---	---	34.23	35.46	34.84	35.19	35.49	34.89	35.62
4	35.60	35.51	---	---	---	34.28	35.49	34.91	35.23	35.49	35.01	35.30
5	35.65	35.54	---	---	---	34.33	35.50	34.97	34.86	35.53	35.10	35.07
6	35.66	35.54	---	---	---	34.33	35.61	35.09	34.29	35.63	35.12	35.19
7	35.62	35.49	---	---	---	34.40	35.62	35.16	34.02	35.70	35.18	35.24
8	35.59	35.60	---	---	---	34.50	35.58	35.21	33.91	35.73	35.31	35.31
9	35.64	35.56	34.52	---	---	34.55	35.59	35.26	33.92	35.73	35.44	35.42
10	35.64	35.77	34.45	---	---	34.64	35.51	35.28	33.89	35.80	35.49	35.46
11	35.65	35.75	34.20	---	---	34.75	35.19	35.22	33.83	35.82	35.51	35.55
12	35.72	35.80	34.32	---	---	34.79	34.89	35.22	33.88	35.84	35.57	35.58
13	35.74	35.53	34.51	---	---	34.91	34.28	35.24	34.00	35.88	35.61	35.60
14	35.77	34.54	34.55	35.75	---	35.03	34.00	35.23	33.94	35.78	35.64	35.60
15	35.75	34.40	34.79	35.86	---	35.03	34.04	35.13	33.79	35.79	35.57	35.54
16	35.78	34.50	34.81	35.90	---	34.96	33.95	35.01	33.93	35.83	35.64	35.48
17	35.77	34.58	35.05	---	---	34.94	33.87	35.05	34.16	35.86	35.66	35.44
18	35.69	34.75	35.31	---	---	34.86	34.01	35.11	34.38	35.92	35.70	35.35
19	35.66	34.80	35.24	---	---	34.89	---	35.21	34.59	35.93	35.71	35.09
20	35.68	34.73	35.34	35.91	33.61	34.96	34.42	35.31	34.75	35.87	35.76	34.90
21	35.69	---	35.49	---	---	35.14	34.52	35.40	34.83	35.73	35.80	34.99
22	35.87	---	35.49	---	---	35.15	34.57	35.49	34.91	35.80	35.82	35.20
23	35.90	---	35.46	---	---	35.15	34.55	35.54	35.06	35.79	---	35.31
24	35.86	---	35.48	---	33.24	35.20	34.50	35.57	35.15	35.83	---	35.41
25	35.65	---	35.44	---	33.38	35.29	34.59	35.65	35.15	35.90	---	35.47
26	35.31	---	---	---	33.54	35.28	34.63	35.70	35.02	35.90	---	35.47
27	35.34	---	---	---	33.64	35.38	34.67	35.68	35.12	35.42	---	35.53
28	35.38	---	---	---	33.75	35.38	34.64	35.64	35.25	34.75	35.95	35.61
29	35.46	---	---	---	---	35.29	34.36	35.57	35.32	34.12	35.96	35.62
30	35.47	---	---	---	---	35.29	34.39	35.52	35.40	34.01	35.94	35.64
31	35.44	---	---	---	---	35.37	---	35.38	---	34.30	35.84	---
MEAN	35.63	35.25	34.97	35.86	33.53	34.84	34.80	35.25	34.60	35.55	35.48	35.41
MAX	35.90	35.80	35.49	35.91	33.75	35.38	35.62	35.70	35.40	35.93	35.96	35.72
MIN	35.31	34.40	34.20	35.75	33.24	33.85	33.87	34.56	33.79	34.01	34.59	34.90

WTR YR 1981 MEAN 35.16 HIGH 33.24 FEB 24 LOW 35.96 AUG 29

402138079031802. Local number, WE 300.

LOCATION.--Lat 40°21'38", long 79°03'18", Hydrologic Unit 05010007, at State Game Land Number 42.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Clarion Formation of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 110 ft (33.5 m), cased to 22 ft (6.71 m), open hole.
DATUM.--Altitude of land-surface datum is 1,270 ft (387 m). Measuring point: Top of plywood cover, 3.05 ft (93 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--February 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.98 ft (4.566 m) below land-surface datum, April 15, 1980; lowest, 29.22 ft (8.906 m) below land-surface datum, July 3, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	18.37	17.53	17.30	17.76	15.77	---	15.27	16.40	16.39	17.00	17.80
2	---	18.39	17.49	17.60	17.37	15.73	---	15.43	16.40	16.44	16.86	17.83
3	---	18.35	17.81	17.56	17.47	15.93	---	15.50	16.40	16.47	16.82	17.82
4	---	18.23	17.78	17.87	17.42	15.92	---	15.47	16.43	16.44	16.85	17.77
5	---	18.27	17.53	17.93	17.46	15.67	---	15.40	16.54	16.40	16.91	17.72
6	---	18.27	17.44	17.72	17.22	15.92	---	15.50	16.48	16.58	16.84	17.69
7	---	18.19	17.37	17.61	17.13	16.16	---	15.63	16.53	16.73	16.98	17.63
8	---	18.34	17.26	17.74	16.99	16.19	---	15.69	16.58	16.78	17.17	17.51
9	---	18.28	17.12	17.75	17.25	16.19	---	15.70	16.51	16.69	17.20	17.54
10	---	18.38	17.21	17.90	17.28	16.11	16.03	15.65	16.60	16.78	17.15	17.54
11	---	18.38	17.31	17.83	17.23	15.96	15.96	15.54	16.82	16.86	17.22	17.54
12	---	18.38	17.21	17.81	17.59	15.93	15.86	15.81	16.85	16.87	17.28	17.52
13	---	18.35	17.21	17.72	17.52	15.78	15.89	15.85	16.75	16.84	17.29	17.51
14	---	18.24	17.25	17.62	17.26	15.95	15.73	15.83	16.66	16.95	17.22	17.48
15	---	18.26	17.23	17.82	17.07	15.93	15.88	15.67	16.60	16.99	17.38	17.49
16	---	18.33	17.11	17.90	16.84	15.80	15.73	15.74	16.46	17.03	17.44	17.49
17	---	18.33	17.24	17.96	16.60	15.80	15.32	15.75	16.38	17.11	17.45	17.54
18	---	---	17.16	17.91	16.34	15.75	15.23	15.68	16.39	17.15	17.47	17.53
19	---	---	17.61	17.86	15.94	15.71	15.25	15.49	16.28	17.15	17.54	17.44
20	---	---	17.68	17.90	16.08	15.87	15.26	15.49	16.18	17.10	---	17.47
21	---	18.04	17.69	17.89	16.03	16.30	15.37	15.54	16.16	17.22	17.61	17.49
22	18.72	18.18	17.58	17.86	15.72	16.35	15.23	15.54	16.11	17.37	17.62	17.51
23	18.73	18.06	17.24	17.83	15.68	16.23	15.08	15.62	16.38	17.39	17.60	17.55
24	18.70	17.90	17.32	17.95	15.86	---	15.02	15.65	16.41	17.37	17.68	17.55
25	18.60	17.95	17.51	18.01	16.00	---	15.40	15.66	16.32	17.40	17.72	17.57
26	18.64	17.96	17.49	17.81	16.13	---	15.45	15.73	16.35	17.39	17.73	17.53
27	18.62	17.68	17.56	17.86	16.15	---	15.40	15.74	16.41	17.39	17.78	17.49
28	18.49	17.35	17.56	17.85	15.91	---	15.36	15.76	16.42	17.30	17.82	17.59
29	18.51	17.50	17.42	18.12	---	---	15.27	15.96	16.38	17.13	17.84	17.63
30	18.46	17.63	17.37	18.12	---	---	15.30	15.99	16.29	17.13	17.85	17.66
31	18.35	---	17.36	18.11	---	---	---	16.32	---	17.06	17.85	---
MEAN	18.58	18.13	17.41	17.83	16.76	15.95	15.48	15.66	16.45	16.96	17.37	17.58
MAX	18.73	18.39	17.81	18.12	17.76	16.35	16.03	16.32	16.85	17.40	17.85	17.83
MIN	18.35	17.35	17.11	17.30	15.68	15.67	15.02	15.27	16.11	16.39	16.82	17.44

WTR YR 1981 MEAN 16.97 HIGH 15.02 APR 24 LOW 18.73 OCT 23

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	$2.54\text{x}10^{1}$	millimeters (mm)
	$2.54\text{x}10^{-2}$	meters (m)
feet (ft)	$3.048\text{x}10^{-1}$	meters (m)
miles (mi)	$1.609\text{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\text{x}10^{3}$	square meters (m^2)
	$4.047\text{x}10^{-1}$	square hectometers (hm^2)
	$4.047\text{x}10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590\text{x}10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785\text{x}10^{0}$	liters (L)
	$3.785\text{x}10^{0}$	cubic decimeters (dm^3)
	$3.785\text{x}10^{-3}$	cubic meters (m^3)
million gallons	$3.785\text{x}10^{3}$	cubic meters (m^3)
	$3.785\text{x}10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832\text{x}10^{1}$	cubic decimeters (dm^3)
	$2.832\text{x}10^{-2}$	cubic meters (m^3)
cfs-days	$2.447\text{x}10^{3}$	cubic meters (m^3)
	$2.447\text{x}10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233\text{x}10^{3}$	cubic meters (m^3)
	$1.233\text{x}10^{-3}$	cubic hectometers (hm^3)
	$1.233\text{x}10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\text{x}10^{1}$	liters per second (L/s)
	$2.832\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832\text{x}10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309\text{x}10^{-2}$	liters per second (L/s)
	$6.309\text{x}10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309\text{x}10^{-5}$	cubic meters per second (m^3/s)
million gallons per day	$4.381\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381\text{x}10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072\text{x}10^{-1}$	megagrams (Mg) or metric tons